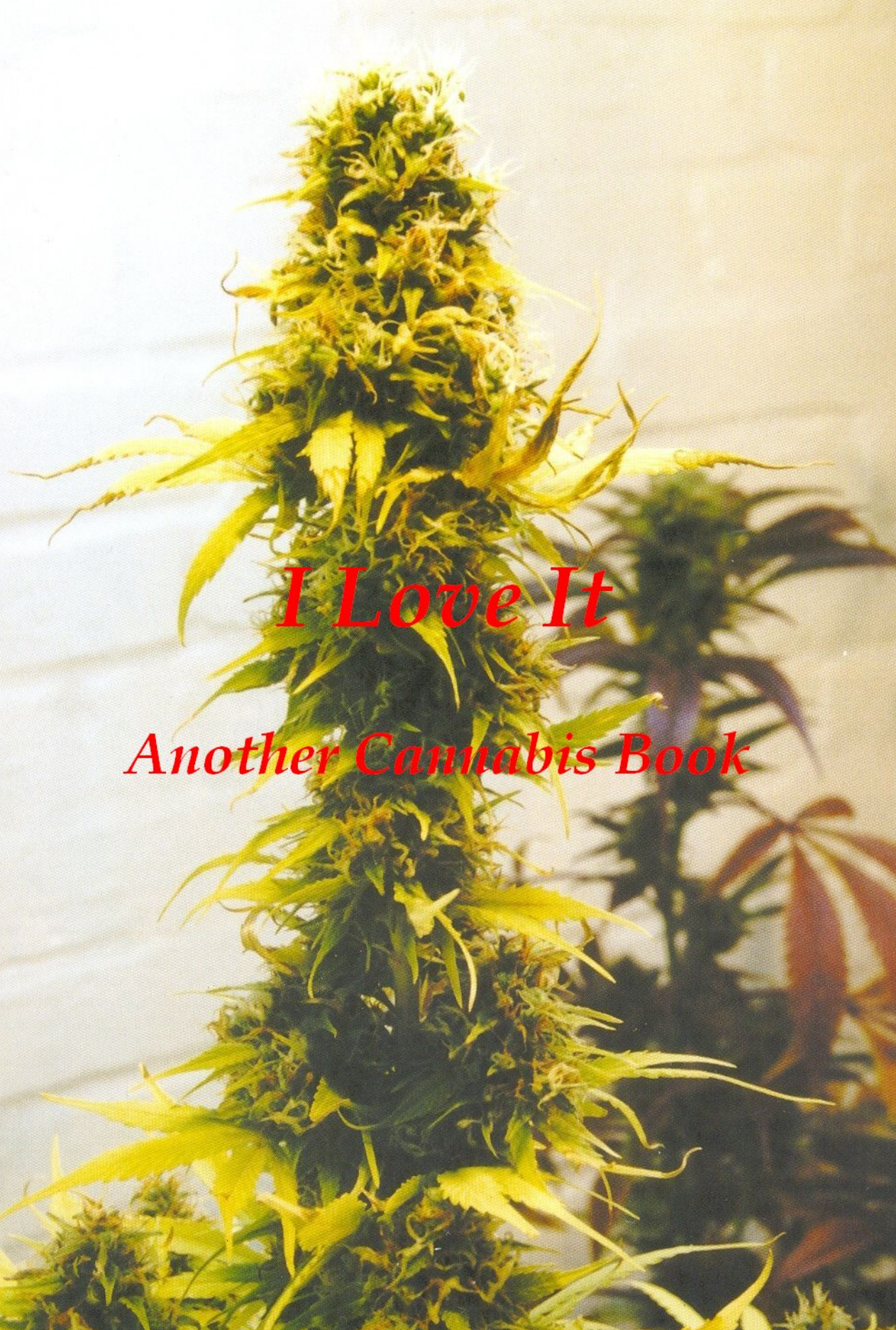




I Love It
Another Cannabis Book

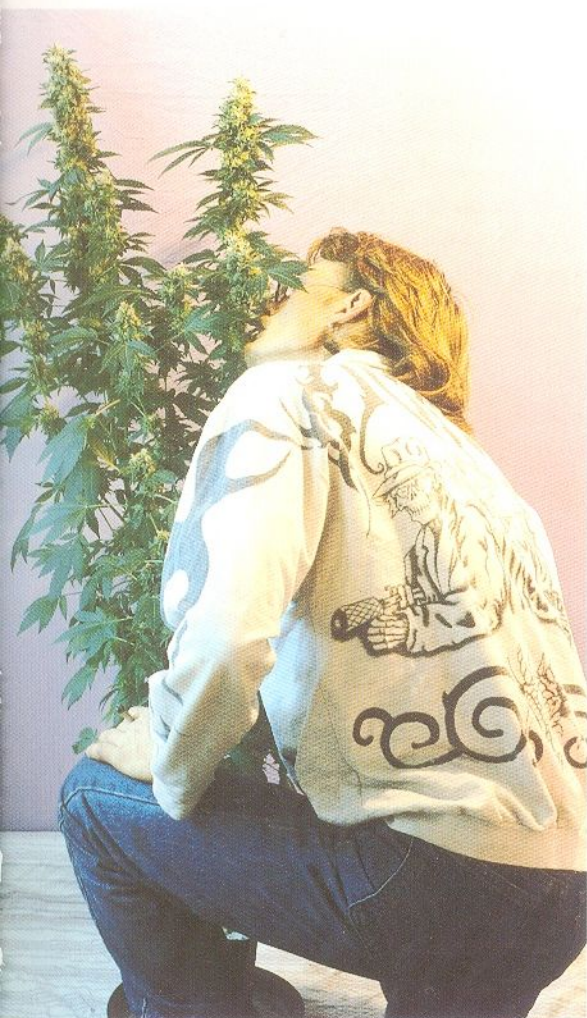
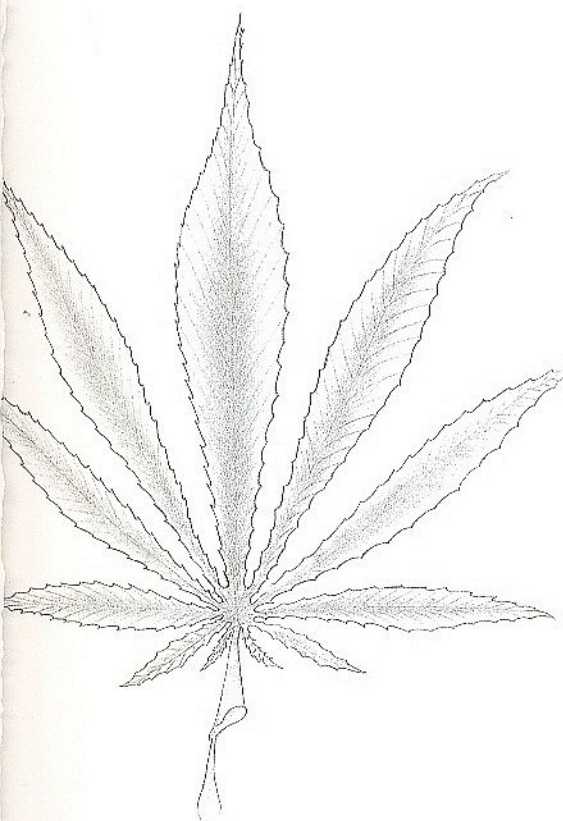
VISIT...

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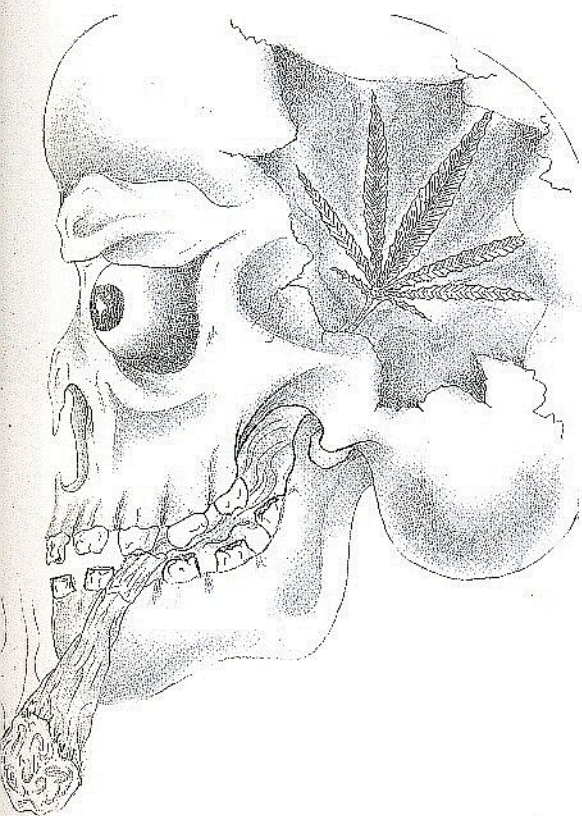


Table of Contents

1	All beginnings are hard	5
2	Important cultivation factors: Light	10
	Soil	13
	Air	15
3	Varieties of seeds	16
4	From a seed to...	20
5	Sexes: Male, female, hermaphrodite	37
6	A failure: but why?	45
7	Second attempt: Oasis in bloom	52
8	Harvesting the seeders	68
9	Cuttings	80
10	The harvest of the vegetatively propagated plants	90
11	Process when they are still fresh	92
12	A mother plant flowering	95
13	Deficiency and shriveling of the leaves	106
14	Finger leaves	113
15	Pesticides or biological herbicides	115
16	Seeds and how I cultivate them for my personal use	122
17	Hash	128
18	Hash oil and how I produce it	135
19	Smoking: The tulip and the joints with hash oil	143
20	Food: Brownies	150
21	Drinks: Beer!	155
22	Every house has space somewhere else	159
23	Open air production	177
24	Epilog	190
25	Literature	191



1. ALL BEGINNINGS ARE HARD



are used for the production of paper, for example) and seeds that I collected from marihuana, hoping to find something suitable to smoke. For some reason the marihuana seeds never sprouted. The fibre hemp had no problems sprouting, but the result was not very potent.

Two or three years later an acquaintance brought me two different types of seed from the Netherlands. It was the first time I realized the potency that fresh marihuana can possess.

The term "Home Grown" suddenly meant something different to me. The taste and the kick were not comparable to anything I had known before. They created the foundation for my next plan "SELF-SUFFICIENCY".

All beginnings are hard. In my early youth I had already planted my first hemp seeds and enjoyed the sight of them. In those days I had to support the plants with bamboo sticks. Ever since I started to use cannabis products, I was intrigued by the question: what is hashish made of, and on which part of the plant does it grow?

When the first Definitive Hemp Manual 1982 (Definitiven Hanf Handbuchs 1982) was published, I acquired my fundamental knowledge of the plant. I immediately started to prepare a room. I purchased fluorescent lamps for the light and all other required components to be able to mix my own good soil. At least I thought the soil would be good. However, after I'd tried different soil mixtures, I still had problems with signs of deficiency and leaf shriveling. But I did get some useful starting points in the botanical field as well as in cultivation and I finally found out how hashish is produced in its countries of origin. In the first instance, that was the most important thing for me.

Keeping an eye on expenses, I tried to experiment with seeds for fibre hemp (which



A dream! It would save me a lot of money and I would no longer have to be part of the illegal drug scene!

▲ 1980, one of my first plants



Unfortunately in the first years I didn't achieve the desired result. I experimented for several years and modified my cultivation system in order to improve it. I did everything according to the directions I got from the book. My first attempt to separate male and female plants can be viewed below (the plastic foil between the plants). Of course I failed. But a new type developed which I called Silver Bud. A fantastic accident!

The biggest step towards self-sufficiency I was able to make was when the first Grow Shop opened in Berlin. I was able to get anything I needed there. Since then, many shops have opened in Germany so everyone can supply themselves with the essentials.

The range of gardening supplies is very extensive but the differences in price are sometimes very big. I would like to advise everyone to compare prices because it can save quite a bit. I was lucky because the first shop I walked into had precisely what I needed: a biological cultivation system with all the fittings. Of course I had a look at other shops in the area but I could not get used to the hydro-culture equipment.

When I started to use the sodium vapor lamps for light, I could see an obvious improvement in the growing and flowering.

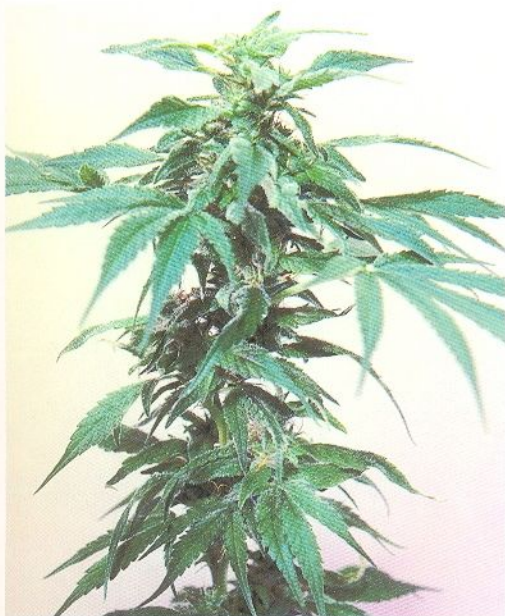
The next step to increase the yield of the plants was to improve the soil mixture. I will discuss this later.

I would like to take this opportunity to thank Sylvia, Jochen and Sven, who allowed me to work in their Grow Shop. I was lucky to be able to become an expert on the plants this way — especially on the subjects of lighting and soil.





This does not mean I know everything. On the contrary, new developments occur every day. So that with each day you don't learn something new, you know increasingly less. In 1993, my yield with my soil, the so-called amateur soil mixture test number 1589, was about 20 to 30 grams per plant. This was far



away from being self-sufficient. What's more I had to buy many unnecessary seeds because, even though I had heard of cutting strikes, I had never cut a cutting myself.

I just needed a better quality soil, which I found that time in All Mix. In a short time my yield increased 100% so that I achieved 50 to 60 grams per plant. It was a good start but still not good enough. My own use is a bit higher than normal because I'm married to a wife who is also a user. This means I have to take care of us both. First this was only a dream which slowly came to realization. Only in September 1995 did I succeed — I was

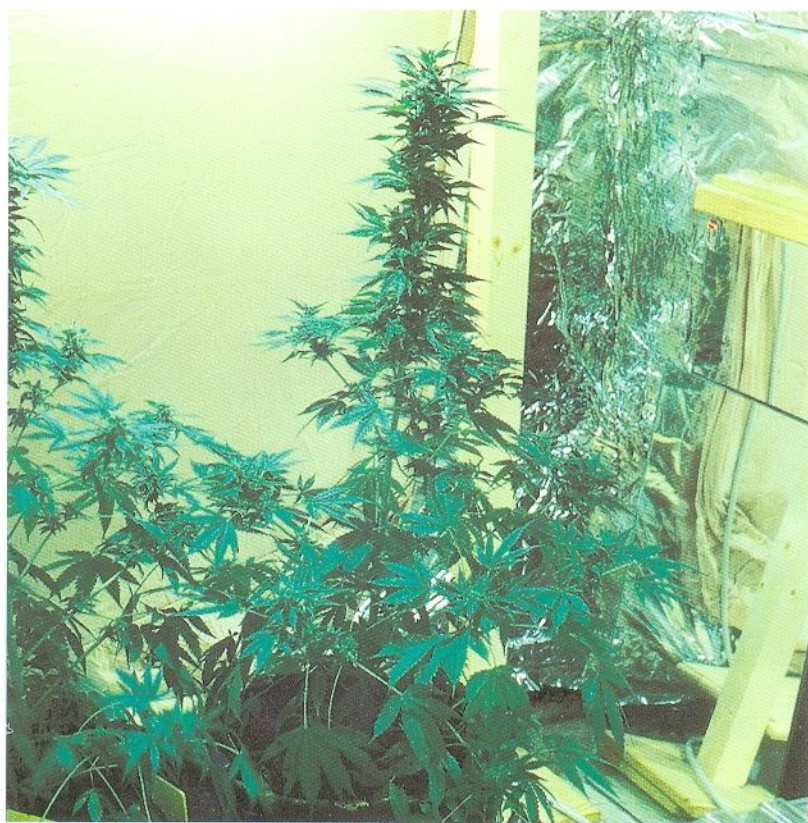
independent of the drug market. My yield is about 100 grams per plant and still increasing.

Politicians are continuously deliberating and debating.

The best proposal I can give to them is self-sufficiency. With the current means, almost everybody can supply themselves with good marihuana for a small amount of money. What matters to me is to be able to show how I accomplished it, not to stimulate cultivation. In Germany, you still need a license for the cultivation of hemp plants.

Yet we are way ahead compared to alcohol consumption, the most relentless opponents to marihuana.

If I had been drinking for the past 20 years, my liver would be wrecked and my marriage would probably never have taken place. Without drugs I would have ended up in jail: the problem of having a short fuse. But thanks to the hashish and the marihuana, I've been able to get through hard times without going crazy. In our house, hemp is even used as a medication.





The top of an Oasis cutting

*Mexican Sativa after
13 weeks of flowering*

Flowering Oasis mother plant

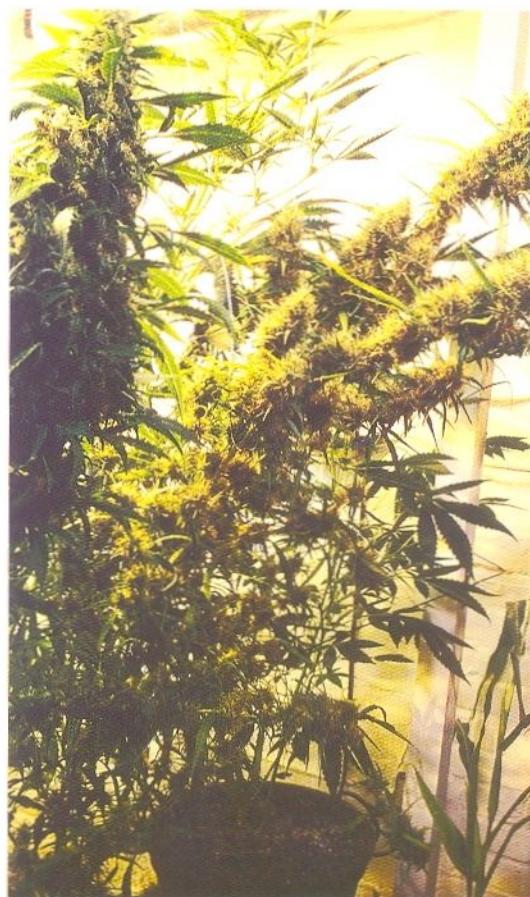


Because my wife had cancer, she had to go through chemotherapy. Marijuana has helped a lot to lessen the side effects of her therapy! My father-in-law, who is destitute and bedridden because of multiple sclerosis, declared that even though he was aged 60 he would try it, too.

There are two ways for my family and myself to obtain this herb and I think it is clear which one I have chosen.

After this book has been published, I will apply for a license. I want to be an honorable member of society and not a drug-addicted criminal.

But let's stop beating around the bush and start! The first chapters are very sound although perhaps a bit dry for some people. But despite that they are also essential and very informative. I've tried to keep them as short as possible.





At that time I had covered all walls with aluminum foil which cost me a lot of money. A year later when I renovated the place, I tore everything off and painted the walls white. Paint is a lot cheaper and reflects better. All plants were cultivated from seed.





2. IMPORTANT CULTIVATION FACTORS



2.1 A very important subject: light!

In most Grow Shops you will not be able to find anything like a fluorescent lamp system. I don't know why, but Lumilux lamps are a very good source of light. I achieve good results with these lights and they've saved me quite a bit of money.

However, there is a small problem when using this light system — it has a limited range. It provides good light up to a distance of 50 centimeters, but from 90 centimeters outwards it changes from less efficient to inadequate. Other light tubes like Gro-Lux or Fluora have a too low a light efficiency and are therefore not recommended. The Lumilux, the so-called high efficiency fluorescent light, is available in two useful colors: the light color 11, daylight (blue), and 31, warm tone (red). Both colors combined are an inexpensive source of light for the first few weeks.

It should be possible to obtain these lights in any special light shop. (Lumilux lights 11 and 31 from Osram should be sufficient).

Regarding the colors of the lights, I make the following comments:

Daylight (blue) is responsible for the growth of the stem and the roots.

Warm tone (red) is responsible for the development of the leaves and the flowers.

Only a combination of both colors will give the most suitable light for plants.

Another available light source is H.Q.L. This is a so-called high-pressure mercury lamp that provides excellent light for the growing stage. The lamp is not suitable during the flowering period because the light does not provide

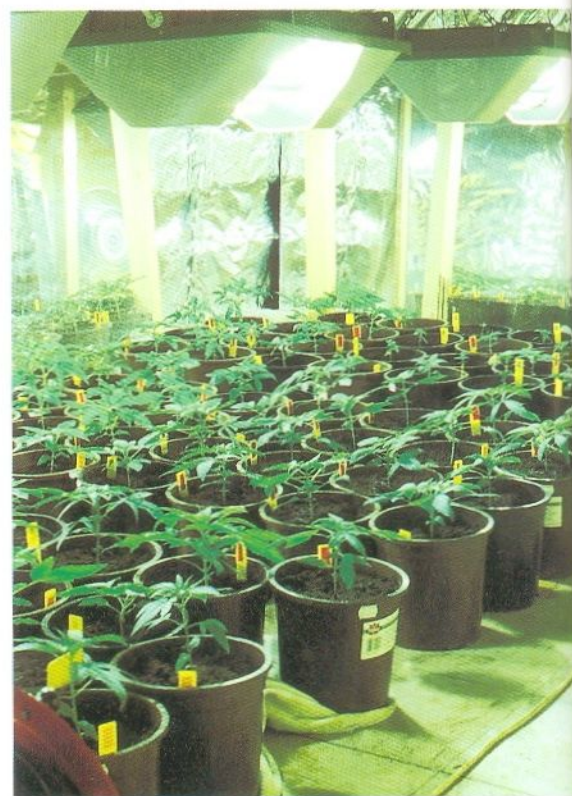
enough red radiation, which is important for the development of flowers. Besides, the energy use is higher and the light efficiency per watt is lower compared to fluorescent light.

The available light systems with the highest efficiency are the high-pressure mercury lamps, the same lamps that are used in the Dutch greenhouses. The light color can be adjusted by changing the bulb, and the variety of bulbs is very large. Therefore you need to be properly informed. These lamps give the best light but also use the most electricity, about DM 3.- per day with a lighting period of 18 hours. That's why they should only be used when the plants have reached a height of 50 centimeters.

To achieve a good-looking bloom (Big Buds) you will need a 400-watt sodium vapor lamp.

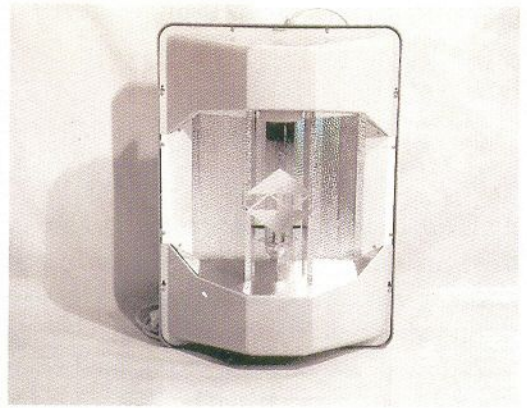
You can see in the picture below the best example of energy waste.

Shortly after the plants developed their first leaves, I put them under the 400-watt sodium lamp, which in principle should be no problem because the plants will experience no harm. You can however save 50% of energy (money) if you use fluorescent lights for the first four to five weeks.

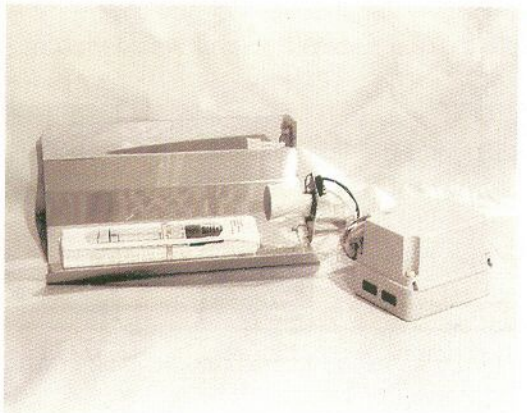




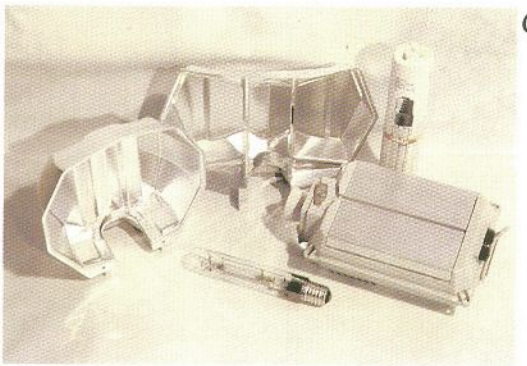
First quickly a few numbers. According to the calculations of Dutch experts, there is a minimum of 30,000-lumen light needed per cubic meter. A 400-watt sodium vapor light gives between 52,000 and 55,000 lumen and a lamp of 600 watts gives 93,000 lumen. This means that it is possible to light a maximum of three cubic meters with only one 600-watt lamp.



4



5



6

The following light quantities are needed for the flowering period:

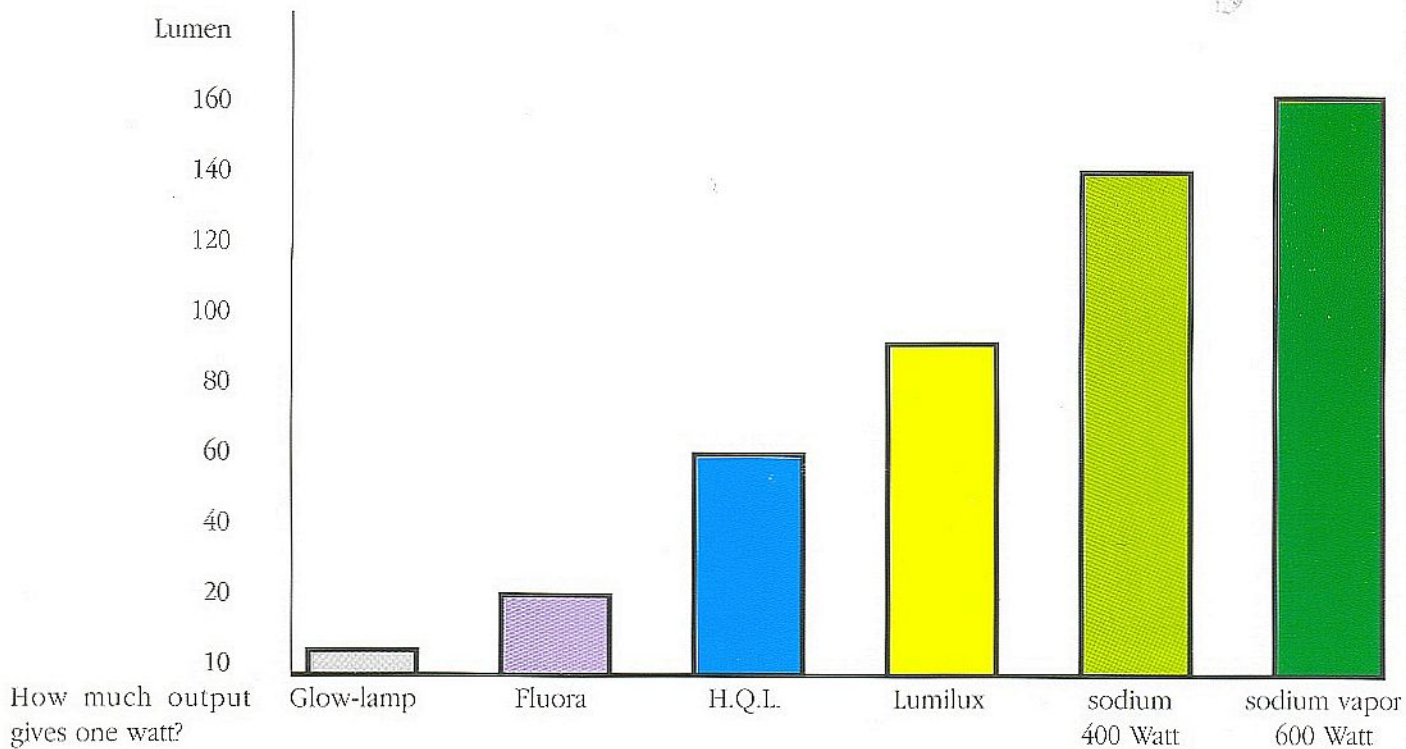
1. A fluorescent light system
2. A 250 watt radiator which can be switched from H.Q.L. to sodium lamp by changing the bulb.
3. A 400 watt sodium vapor lamp
4. My first 400-watt lamp was an Industria (sodium vapor). These are also available as 600 and 1000-watt lamps.
5. Remoth systems are available for 400, 600 and 1000-watt lamps
6. 600 watt Poot is also available as a 400 and 1000-watt lamp.

11

A COMPARISON OF DIFFERENT LIGHT SYSTEMS



Light efficiency in lumen and watts



	System efficiency (Watt)	luminous flux (Lumen)	Lumen per Watt light system efficiency	photosynthetic activity	Sun-photo- synthetic factor
HQL 80 W.	89	3,800	48		
HQL 125 W.	137	6,300	50		
HQL 250 W.	266	13,000	52	23,69	0,656
HQL 400 W.	425	22,000	55	40,1	0,656
HQI-T 250 W.	275	20,000	80	49,67	0,894
HQI-T 400 W.	440	33,000	76	82	0,894
NAV-T Super 250W.	275	33,000	132	53,8	0,586
NAV-T Super 400 W.	440	55,000	139	90,48	0,586
NAV-T Super 600 W.	645	90,000	150	147	0,586
Planter-T 400 W.	440	52,000	130	78,4	0,542
Planter-T 600W.	645	84,500	135	127	0,542
Lumilux-11 36 W.	44	3,250			
Lumilux-31 36 W.	44	3,350			
Lumilux-11 58 W.	70	5,200	74,3	10,3	0,715
Lumilux-31 58 W.	70	5,400	77,1	9,65	0,646
Fluora-77 58 W.	70	1,350	19,3	5,58	1,49

System efficiency: The effective watt (current) consumption.

Light system efficiency: The total amount of lumen from the light system.

Photosynthetic activity: The conversion of light into leaves, analogous to luminous flux.

Sun-photosynthetic factor: Comparison of the effective natural daylight with an equal lighting exposure.



2.2 Soil

Soil is not just soil.

As I mentioned earlier, I have tried different soil mix proportions. I will now describe how to mix the soil I have had the best results with.



The recipe originates from the Netherlands but have made some adjustments.

Everything you need can be bought in any specialty shop — good soil, the separate fertilizer ingredients and, very important, perlite.

Why do I mix my own soil?

Through the years I have noted a countless amount of fluctuations in the composition of the soil mixtures. That is a pity because it could have saved me a lot of time. The soil

needs be mixed well and I mean WELL. If that is not the case, problems can arise that will differ from pot to pot. In one pot, leaf shriveling could appear, while another needs to be fertilized earlier. This is a hassle.

If I compose and mix my own soil, I know it is done well and if something goes wrong I can only blame myself. Besides, it saves me some money.

To mix a good cultivating soil it is important to start with a good potting soil. This consists of 70% peat soil and 30% clay. This soil should not be confused with cheap flower soil, which consists of 100% peat soil. No matter what type of potting soil, the composition should always be mentioned on the back of the packing.



Next I need perlite (Perligran) to ensure a good airing of the roots. What is more, perlite can act as a buffer to over-watering.

I have specially rebuilt my garage to make sure I have enough space to mix my own soil. We are talking about 1000 liters and I need about two hours to mix it properly.

Over the past year I have also started to blend my own fertilizers. I am very pleased with the result and therefore I will give you the recipe.



The separate fertilizers have to be mixed well. Only then can the ingredients be added to the potting soil.



It is very important to mix the soil accurately and thoroughly!

The next question is: where could I mix the soil? My suggestion: in the bathtub! There is enough space for 100 liters of soil and the mess is limited. After everything has been mixed well, the soil is put into plastic bags for preservation.

The following fertilizers are needed:

- Cow manure: 3 liters
- Bone meal: 0.5 liter
- Lime: 0.25 liter
- Horn meal: 0.25 liter
- Horn chips: 0.5 liter
- Igneous rocks: 0.5 liter

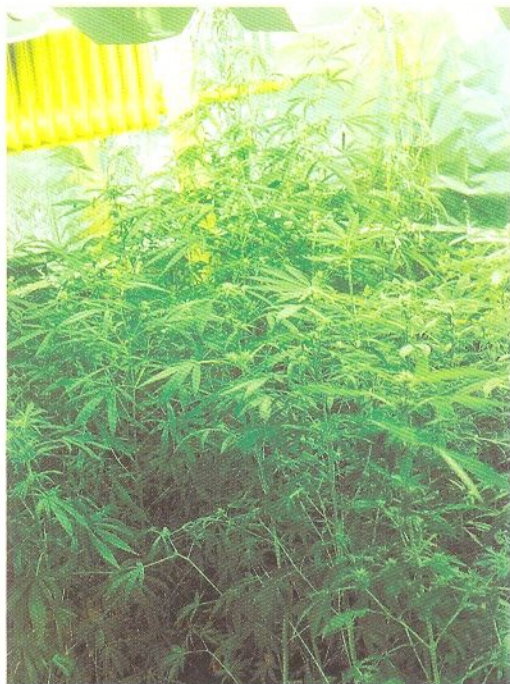
A soil mixture keeps for a year or longer but it is important that it doesn't go moldy. To prevent mold, I pierce little holes in the plastic bags..

To mix 100 liters of good cultivating soil, I need the following:

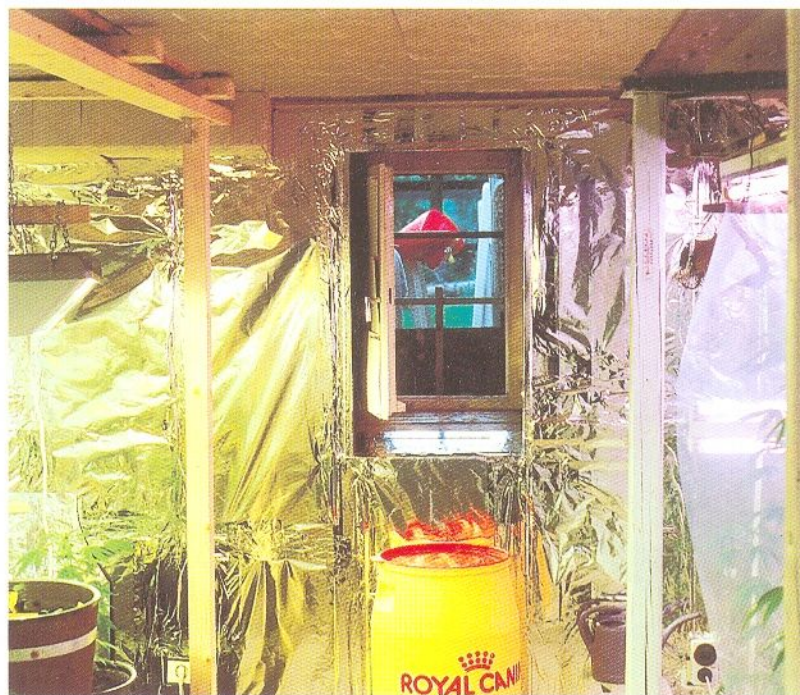
- 5 liters of fertilizer = 5%
- 10 liters Perligran = 10%
- 85 liters starting potting soil = 85%
- = 100 liters

100% good soil!





rather expensive, secondly the level of CO_2 in the air is hard to check, unless you are prepared to buy a computer-controlled measuring system, and thirdly you will need suf fi-



cient expertise to achieve an increased yield, since it requires readjustment of all other grow factors..



2.3 Air

Air and circulation

It took me a long time before I realized the importance of good air. In the beginning I only made a ventilator close to the window thinking this should be enough. Next I filled the entire room with plants. Because of this, the plants had to compete for light, space and air. In the end the plants were too thin and were not able to support themselves when they started to flower. The only thing the ventilator did for the plants was to provide air circulation. This is certainly important but it has nothing to do with fresh air. Next to light and soil, good air is the third most important environmental factor that should be taken into account if you want good results. After I had installed a spiral casing fan, I was able to see a clear improvement after only a few weeks. Regarding the plant's use of CO_2 : A leaf takes about 30 minutes to consume the CO_2 in its direct environment. After that the plant will not die straight away but it will find it increasingly difficult to breathe and this can lead to suffocation. So there are two different types of air: circulating air and fresh air.

I think that the supply of fresh air is the most important one and after that the air circulation.

A totally different subject is the artificial dosage of CO_2 from gas bottles. First of all it is



3. Varieties of seeds

Seeds but which ones?

This is a difficult subject because the supply increases day by day.

I have learned never to give advice on the purchasing of seed. I do try to describe the sorts that are familiar to me. So you can make up your own mind. When you buy seeds, pay attention to the color and the origin. Unfortunately you cannot determine the germinal force from the outside. You can see from the color if a seed is ripe or not. If it is white or greenish, you can safely assume that the seed

this book to discuss all sorts in detail. It would be better for you to get advice from a specialist who might also be able to show you a picture of the plant.

To answer a question that has been asked repeatedly, I would like to discuss the difference between the Sativa and the Indica. Most people nowadays agree that originally there was only one hemp sort (*Cannabis L.*). The differences in the flowering are related to the different climate zones (and 100,000,000 years of evolution). Everything these days is controlled by people — it is called selective multiplying.

To go back to the differences; it starts with the kick. The Indica gives a reasonable kick. For example, when I take a bath I usually smoke a joint. The first time I smoked a small bag of Big Bud, I was so far-gone that I wasn't able to do anything. For ten minutes, I kept telling myself to get out of the bath but I was really not able to. Not until I drained the water and it became so cold that I had to get out (you will not be able to lift your ass).

Sativa however acts very differently. She uplifts you in an inspiring way and she helps me to enjoy my

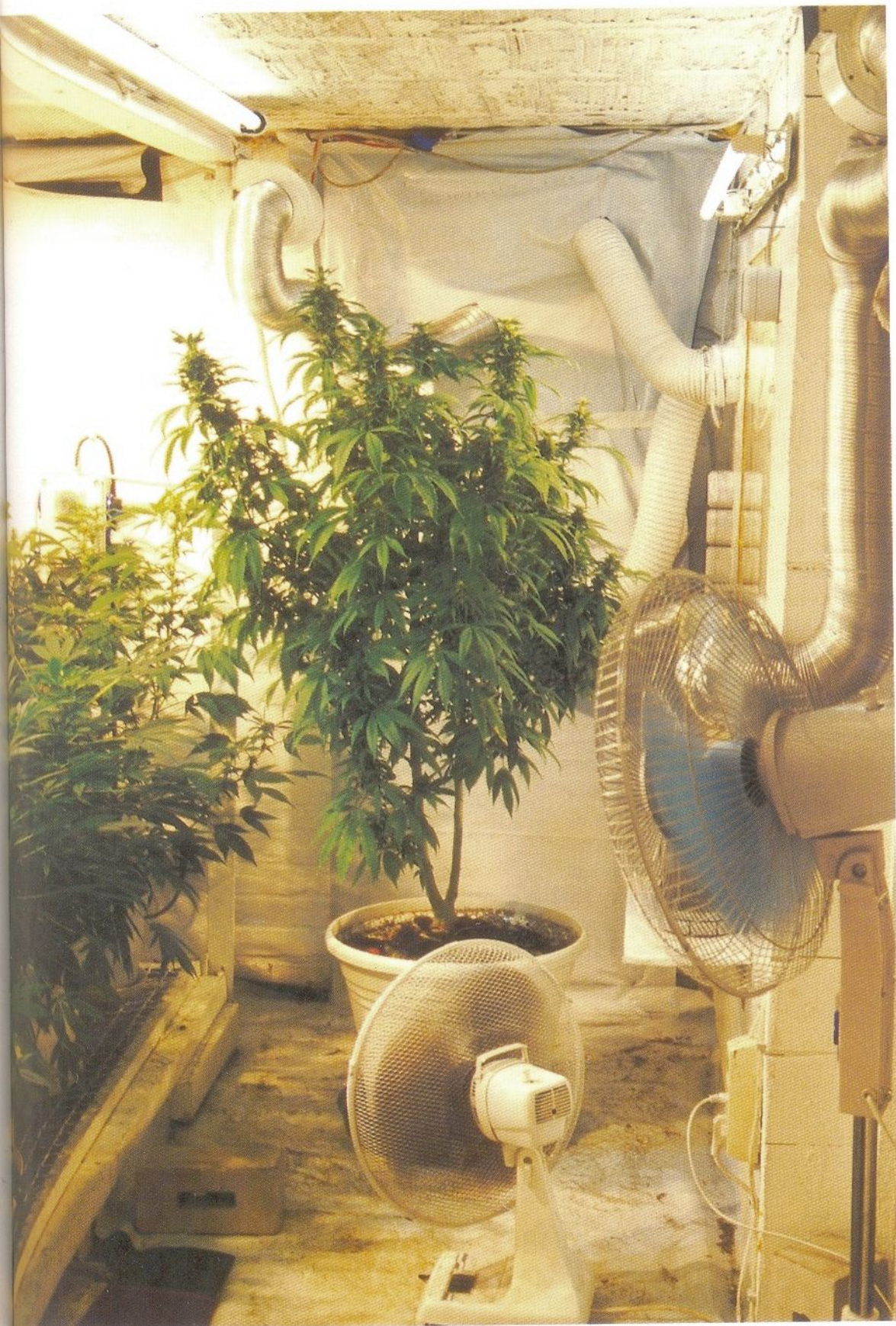
work (the smiling househusband with the vacuum cleaner in his hand). The next big difference is clearly visible in this picture. On the left side is a Silver Haze (Sativa) and the right side a Big Bud (Indica). The leaves of the Sativa stand wider apart and are smaller.

The period of flowering is also different. The flowering of an Indica normally takes about six to eight weeks; the flowering of the Sativa takes nine to 14 weeks (for example Thai).



Both plants are three weeks old. They are cultivated in 9 x 9 pots and under 3 x 58 watt fluorescent lights of the light color 11.

is not ripe. The origin of the seed is important because there are many people who sell any accidental pollination as a new sort. With these sorts you actually don't know what you're getting. I will discuss the subject of multiplying a bit later. Only good things can be said about the seeds from the Netherlands. They are healthy with a strong germinal force and a big yield. Actually almost all seed cultivators from the Netherlands have good seeds. The only difference is in the prices. It would be too much work and against the scope of



Left: the flower area for the Sensimilla (without seeds). In the middle stands a mother plant.
Right: The area where all the different sorts of hemp are pollinated.

The development continues steadily. This is what my basement looks like nowadays. I have three squirrel cage fans which blow 250 cubic meters of fresh air into the flowering room. Two swivel fans handle the air circulation.



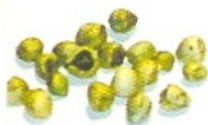
I have chosen a type of Indica to be able to show you in detail my procedures. The Big Bud has been cultivated by one of the best in Holland and is my favorite because of her unique character. As a true Indica she has a heavy kick, a sweet, fruity flavor and a bloom period of 8 to 9 weeks.

Nurserymen even advise to set up support for the lower branches since the clusters of buds can become exceptionally big and heavy. The indicated height is between 160 and 180 cm and the maximum amount of harvest should be about 150 grams. Although this weight indication made by the Dutch confused me, I realized after some thought that it made sense. It applies to full-grown plants, which under ideal conditions should be able to produce such a big crop. In this book I will show plants, which after the considerable long bloom period of 10 weeks, are also almost fully-grown and which, if everything goes right, should have similar results. However I would seldom allow such a long bloom period (except for mother plants); for any kind of Sativa (Silver Haze, Mexican, Juicy Fruit) it is even strongly discouraged. These plants can reach a height of 3 to 4 meters and some-



times even higher. My highest plant so far reached the height of 340 cm and was a Super Skunk that stood in my garden. The Super Skunk is not a pure Sativa, so you can imagine how big hemp can become under the right conditions.

If I would cultivate a Sativa type (Silver Haze) I would choose a different cycle. After a growth period of only 4 to 5 weeks, I would allow the plant to bloom. This short period of growth is sufficient for me to achieve a reasonable harvest. The plants though, will have to be tied down continuously in order to stay in the light. Let's start with my old-time favorite: The Big Bud



◀ Undeveloped, almost developed, developed seeds

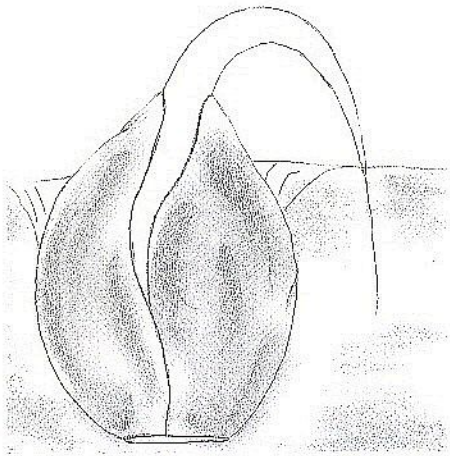


Types of seed

A K 47	Hempstar	Outdoor Mix	Viking
Afghani # 1	Hawaiian Indica	Original Skunk # 1	
Afghani Gold	Hawaiian Skunk		White Cloud
Afghani Skunk	Haze	Purpel	White Widow
Afghani Spezial	Haze Skunk	Purpel Haze	White Russian
African Queen	Himalaya	Purpel Skunk	White Rino
Alpha Bud	Himalaya Gold	Purpel Power	
Audora Borealis	Hindu Kush	Purpel Star	X
Amstel Gold	Holland's Hoop		Yellow ?
Amsterdam Flame	Humboldt	Queen # 1 ?	
		Quarz # 1 ?	Zulo Shaka ?
B - 52	Indoor Mix		
Bengal		Red Hair Skunk	
Big Bud	Jack Herer	Ruderalis Indica	
Big Top	Jack Flash	Ruderalis Skunk	
Black Domina	Jamaican		
Black Purpel	Jamaican Brown	Sensi Skunk	
Bubbelberry	Juicy Fruit	Shiva Kali	
Bob Marley's Best		Shiva Shanti	
Bolivian	Kali Mist	Shiva Skunk	
Buddah	K 2	Silver Haze	
	K C - 33	Skunk Indica	
California Indica	K C - 36	Silver Pearl	
California Orang	Killer Green Bud	Silver Bud	
Chitral	Kerala Skunk	Skunk # 1	
Chitral Gold	Kush	Skunk Bud	
Columbian	Kryptonik	Skunk Kush	
Columbian Gold		Skunk Passion	
Chrystal gold	Lambsbread	Super Skunk	
Crystal Limit	Lambsbread Skunk	Super Thai	
Crystal Paradise	Leda Uno	Smokey Bear	
Cyber Crystal		Spain Special	
Cronic	Maui - Wowie	Spontanica	
	Masterkush	Swazi	
Diamond Delight	Mango	Sweet African	
Diamond Leaf	Maple Leaf Indica	Sweet Dreams	
Durban	Maple Leaf Indica	Skunk Spezial	
Durban Poison	Mexican Sativa	Sweet Skunk	
Dutch Hennep	Mindbender	Swiss Miss	
Double Bubble	Mother's Milk	Swiss Skunk	
Early Pearl	Nepal	Tarakola	
Early Girl	Nepal Highland	Thai	
Early Skunk	Night Queen	Turkey Special	
Euforia	Northern Lights	Top 44	
	Northern Lights # 2	T.N.R.	
Four Way = 1	Northern Lights 5 x Haze	Twilight	
Four Way Special	Northern Light Extra		
		Ultra Bus ?	
Green Spirit	Oasi	Ultimate Fly ?	
Ghandi	Orange Bud		



4. FROM A SEED TO...

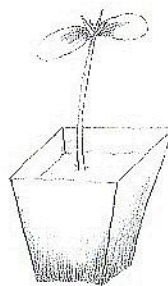
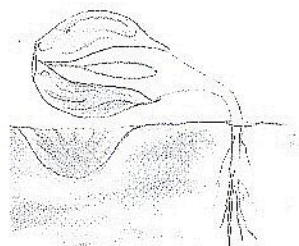
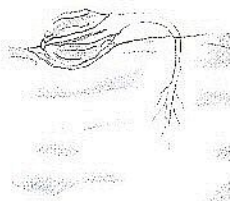


There are different ways of germinating seeds. Some people recommend sprouting the seeds between paper tissues before putting them in the ground. There is nothing wrong with this method for people who have enough seeds to spare and for those who are fairly experienced. However, the disadvantage of this approach is the fact that you have to turn over the seeds. In order to do this

you have to touch the seeds and this means squeezing them a bit. This could lightly or even severely damage the main root. Since, for example, ten seeds can cost 40,- DM or more, and are therefore rather expensive, I assume that we want to germinate all seeds. I will show you how I achieved good results with a different approach. A seed needs three things to sprout: water, light and heat. I always put the seed directly into the soil, making sure that the tip of the seed is facing upwards.

The question what is most suitable for the sprouting of seeds can only be answered with special propagation soil. Seedlings will have a better chance to absorb nutrition from good soil. I will not use 9 x 9 pots for sprouting since the soil is inadequate, but then it is just sowing and propagation soil. The most suitable for the sprouting of seeds and seedlings are the 5 x 5 peat pots. The advantage of using peat pots is that you will be able to transplant them together with the seedlings right into the final pot. Good seeds can start sprouting after 12 hours. However, I did come upon a seed that took 14 days before it started to germinate.

Important: put the seed in the soil for only 2/3 and do not cover it. A constant humidity level of about 85% and temperatures between 20° and 30° Celsius are most suitable to germinate.



Day 0



Day 1



Day 2



Day 4



Day 5





The use of so-called indoor greenhouses proved to be very helpful. I was able to create a suitable climate for the cultivation of the seeds. As soon as the seed has sprouted and the first real leaves are visible, it is time to remove the top of the greenhouse. Real leaves? Of course all leaves are real. The first leaves you will see are round and not milled, they are called seed leaves. After these the first milled 'one-fingered' leaves will appear. (The real thing)

To prevent the seedlings from growing too tall, the smallest ventilator is set at the lowest position and the first stem training can start. Since the cover of the green house has been removed, you have to be very careful not to dry up the peat pots. This might occur when the air circulation is too high and the lamps are positioned too close. If the peat pots dry up, the peat shrinks. This could pinch off the newly grown roots. When watering the plants, you have to be careful not to wash away the newly developed roots with a too strong water jet. It is better to pour some water in the lower part of the greenhouse, now and then. A spray nozzle can also become handy. Make sure, however, that not too many water drops keep hanging on the delicate tops of the plants,



◀ Day 5

The seedling could become too heavy and fall over. It usually takes six to seven days from the moment the seeds start to sprout until the time that the roots start growing outside through the peat pots.

Day 6
▼





As soon as the roots of the seedling grow through the peat pots, the plant will need good fertilized soil!

If the seedling, actually no longer considered a seedling, has grown a bit too tall in the first days, you may put it one to two cm deeper into the soil. It is possible to put the small plant into the soil up to its seed leaves.

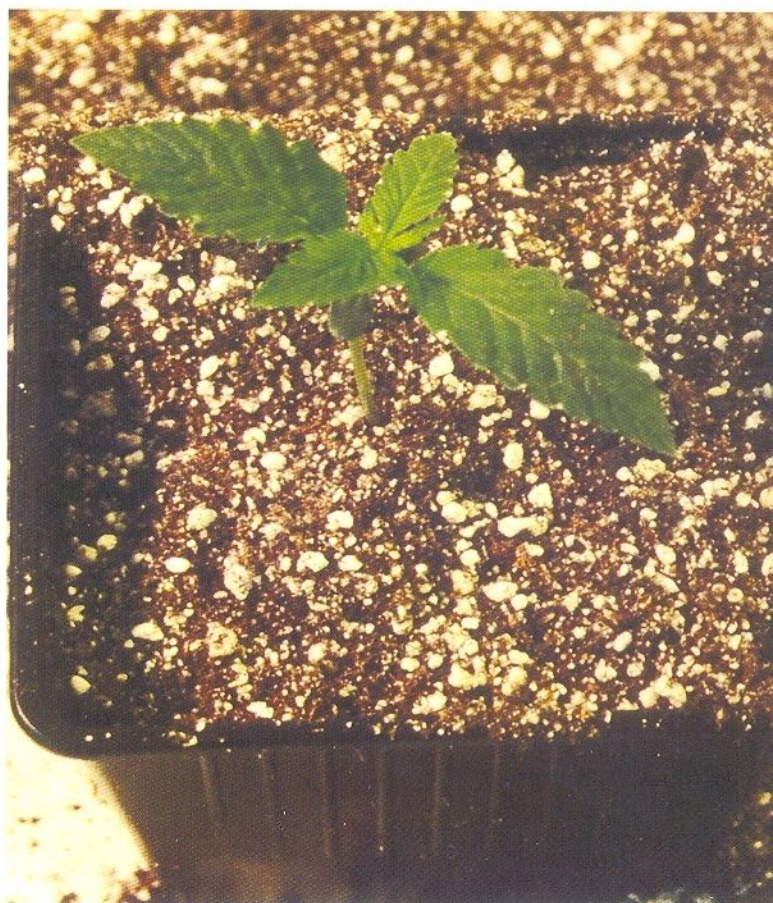
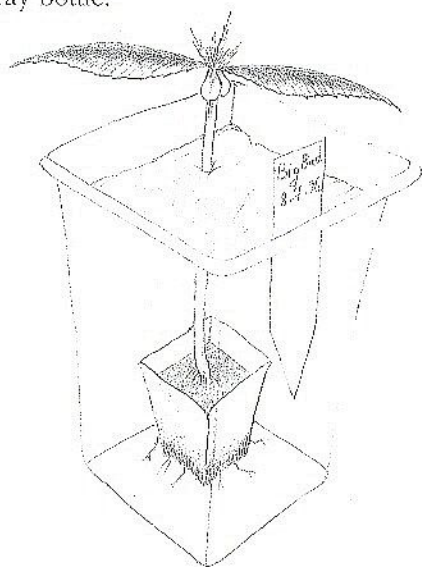
The next pots I use are measured 9 x 9 x 10. In these the plants should be able to grow for the next three to four weeks, provided that the fertilized soil is of a good quality. I often had to conclude that plants which showed signs of deficiencies or leave shriveling in the begin stadium, were not able to produce as successful as the other plants which showed no problems. Repotting is easy. Fill the plastic pot for 1/3 with soil, gently press it and carefully put the peat pot in it. Fill up the plastic pot with more soil and press it gently in order to avoid damage to the small roots. Finish it off with good watering. The best method would be to put the pots on a plate so the leaked through water can still be absorbed.

All the water that has not been absorbed by the soil after about 15 minutes should be drained. It should be prevented at all times that the pots stay covered in water, this is to avoid the danger of mold. I have to state that it is better in one time to water the plants well and plentiful to ensure that the whole root system can absorb what it needs.

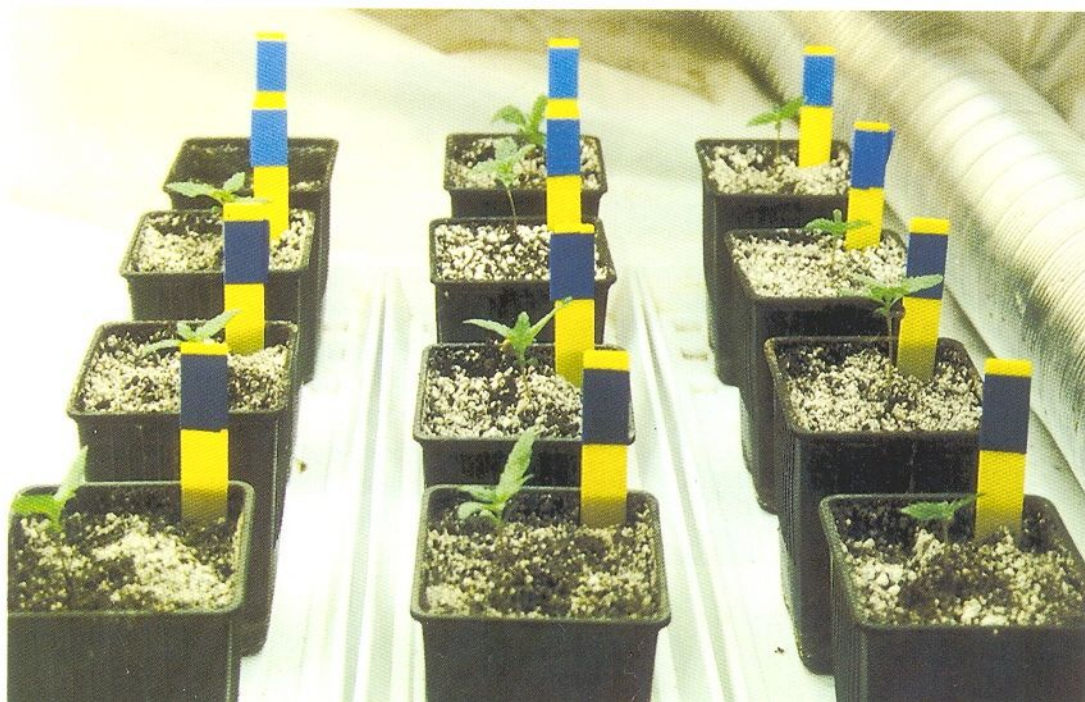




Of course it is not necessary to repot all plants at the same time. I would only take care of the ones that really need to. However we will concentrate on the first plants, and start counting the days of the vegetative phase. In the first two to three days after the repotting, the little darlings will hardly grow at all. They will be dealing with the so-called "repot shock". Don't forget their environment (the soil and nutrition) has suddenly changed and this lead to stress I cannot avoid but will try to limit. The plants will need time to adapt themselves first and after this they will start growing again. From this moment on, every morning after the light has been switched on and every night before the light will be switched off, the little plants will be showered with a pressurized spray bottle.



Do this with care because the plants can still fall over if too many water drops stay on the big leaves. The ventilator is still set on the lowest position.





Seven days have gone by. It is good to see that the little darlings have adapted themselves so well to the soil. The last three plants, as you can see here, encountered some problems with sprouting. We will attend to them as late bloomers. Keeping in mind the high prices for seed we should try to save each individual plant. Who knows, the plants might be female. The ventilator is now set on the second position.

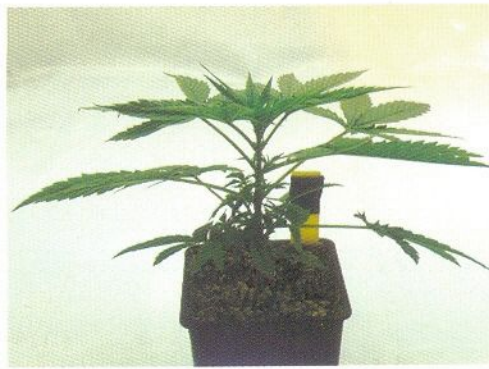
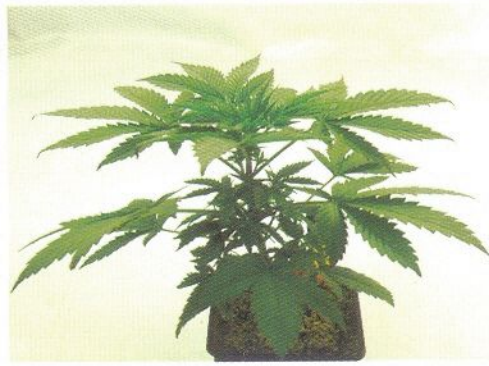


Three weeks further into the growth phase under only 3 x 58-Watt fluorescent lamps, daylight color 11, it is plain to see that the distance between the internodes is very small. This is the result of the sufficient light of the fluorescent lamps and the training of the stems. The plants have reached the height of 10 to 20 cm and it is time to repot them again. Three weeks further in the growth phase the 9 x 9 pots are deficient in nutrition.

The roots also need more space. The next pot size is now 15 x 20 or 4 liter pots. Within these the plants should be able to absorb enough nutritious substances for six weeks. When we repot, we follow almost the same procedures as when we transplanted the seedlings. The only difference in the approach is that this time we have to remove the root clods out of the plastic pots without damaging them.

The best thing to do is to wait for the moment you were planning to water the plants. When the soil is dry, the root clods can be removed from their pots without any problems. I just would like to say something about my use of plastic pots. When I first started, I used pots made out of stone (out of love for the environment) However, I had to deal with a lot more problems when repotting. The root clods did not want to let go of the pots. I often was forced to tap the pot before they would come out. Sometimes this would damage the roots severely. It is different when using plastic pots. You only need to squeeze the sides gently to be able to take out the little plant.



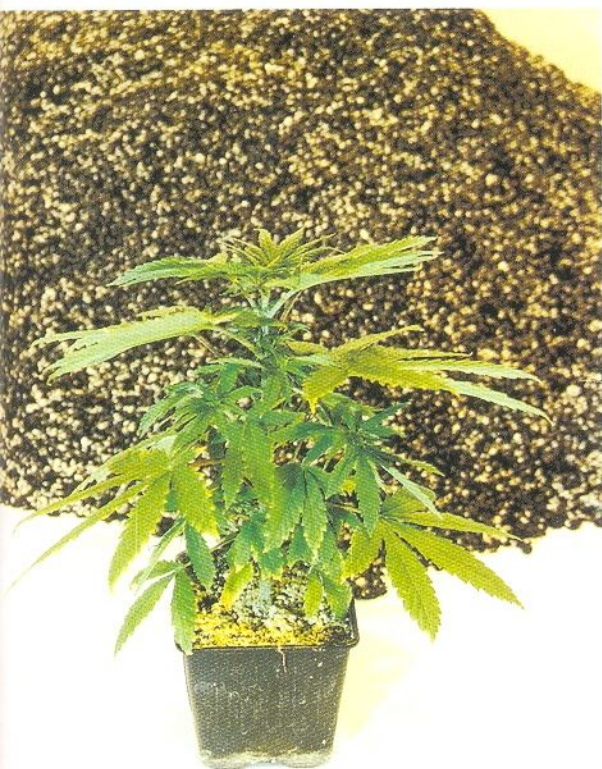


Today all my plants, except the three stragglers, will be repotted. The stragglers went through a two-week period of growth, but they still look as if they are only seven days old.

Despite the fact that the three almost did not make it, it is good to see them recovered quite a bit. They will however, never catch up with the other plants and lag behind in growth.

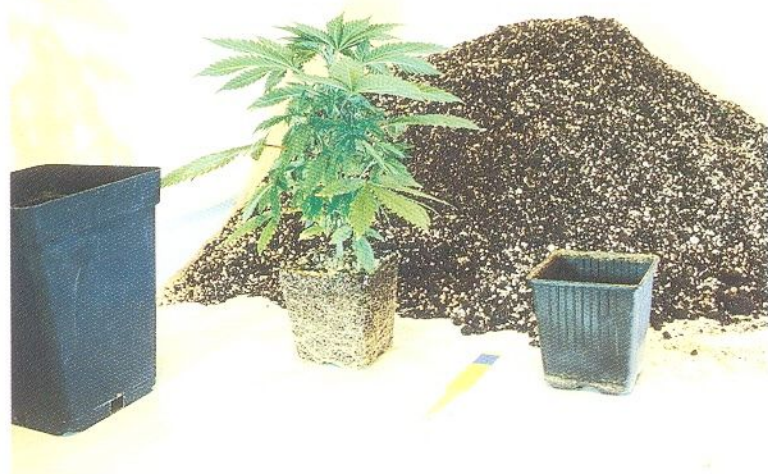
We can fairly assume that seeds, which encountered sprouting problems, will result in plants, which will not develop, as well as their friends who faced no problems at all.





I will need about 50 liters of potting soil to be able to repot all twelve plants. First I will fill the 4-liter pot half with soil, gently pressing it together. Then I loosen up the root clods by carefully squeezing the sides of the pots (this is done best when the soil is dry).

As was the case when planting the seedlings in the peat pots, I again have to make sure that I don't damage the roots. The plant is put into the prepared pot, which will be filled up with more soil. Gently press the soil together and then water it generously.





After being reported, the plants will need another two to three days to get used to the new soil. For the next three to four weeks they will be put under 3 x 150-cm fluorescent lights. Please remember that Lumilux lights are very useful up until the height of 50 cm. All other possibilities will only be a waste of energy. Again it is important to ensure a good training of the stem. For that we use a big ventilator which will be set on the highest position right away.

Below: I can see, two weeks after the reporting, that my plants are doing great. The leaves are dark green and the stem is strong and growing. The plants are now about four weeks old. The biggest plant has a height of about 26-cm and the smallest straggler even reached 12 cm. Now is the time to repot the three small plants in order for them not to miss linking up. They are about two weeks behind in development





As soon as the plants reach 50 cm, it is time to say goodbye to the fluorescent lights. Until that moment the lights proved to be working fine and they saved me a lot of money. Since the foliage is getting denser and the light efficiency at the bottom is strongly decreasing, it is time to switch the lights. When the plants have passed the height of 60 to 80 cm, there is a danger that the lowest leaves, due to the lack of light, might become yellow and fall off.

The first day under a 600 Watt high-pressure sodium vapor lamp. It is very important during those first days to keep the minimum distance of 60 cm. The plants will otherwise not be able to handle the change in climate. A 600 Watt lamp gives 65% heat, which is quite a bit. The plants are very sensitive to strong changes in temperature, light and humidity. (Climate)

Everything seems to be fine, humidity level is 60% and the temperature is 23°C.





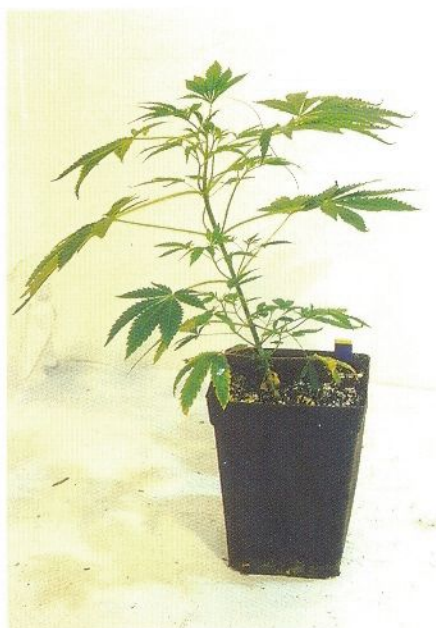
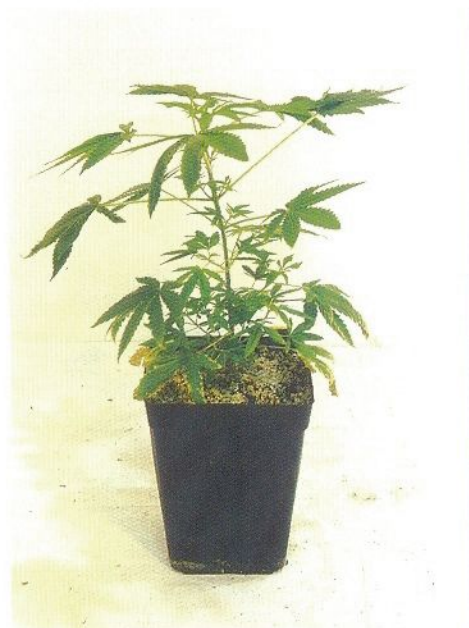
*Seven days under the sodium vapor lamp:
you can almost see them grow.*

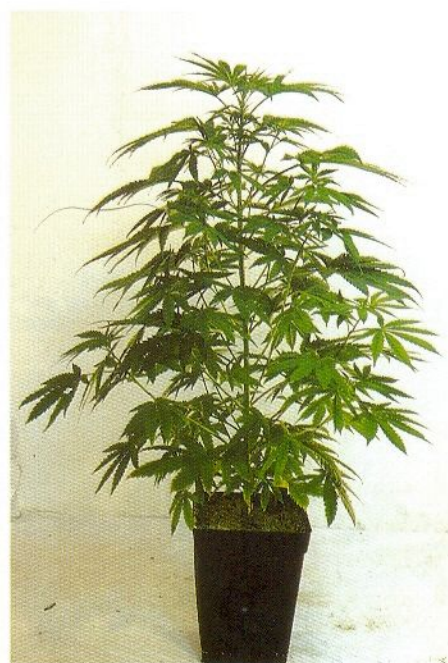
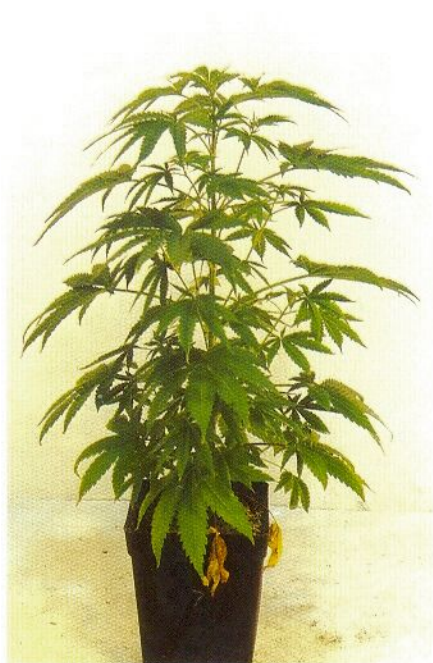
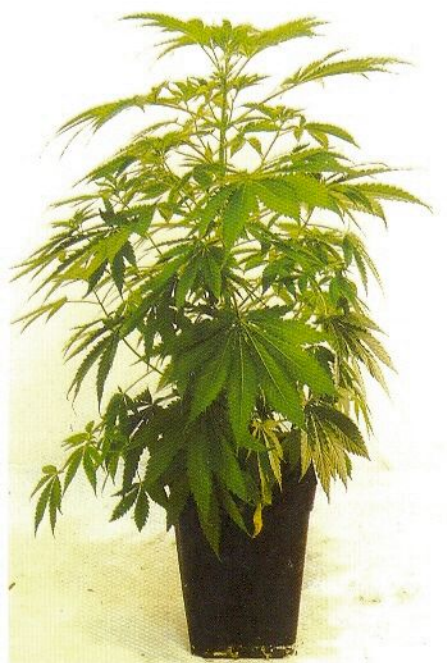
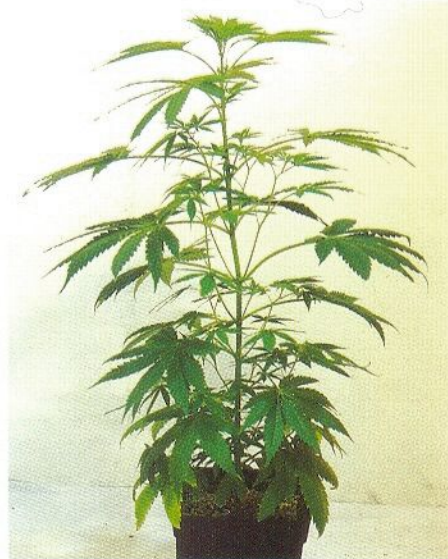
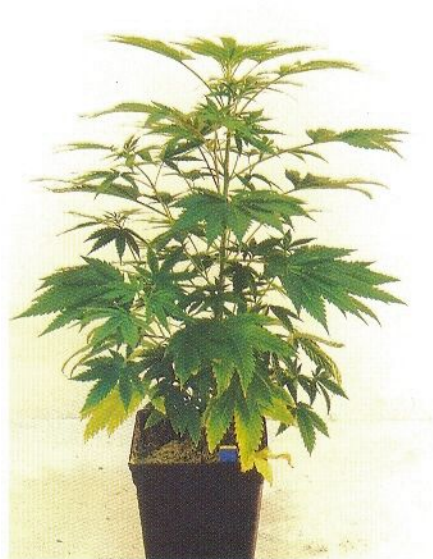
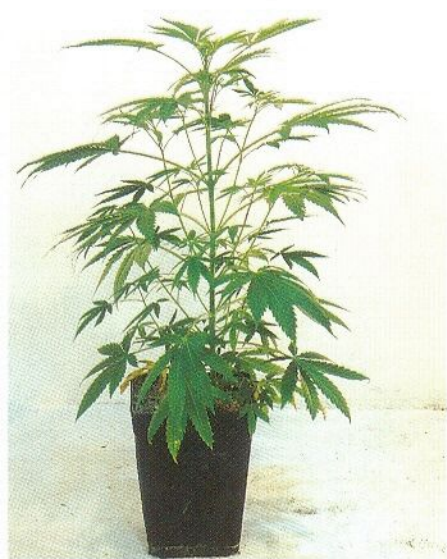
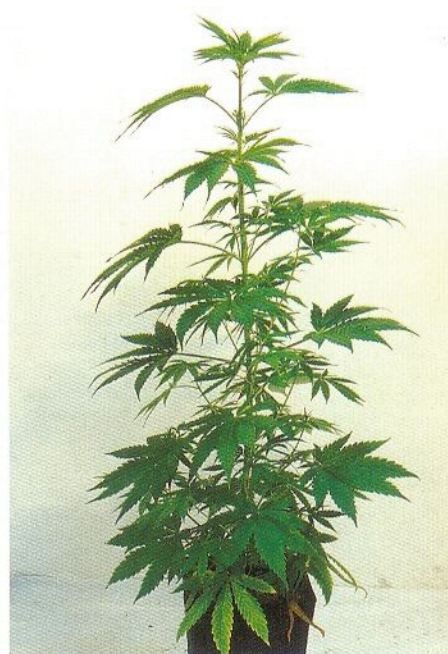
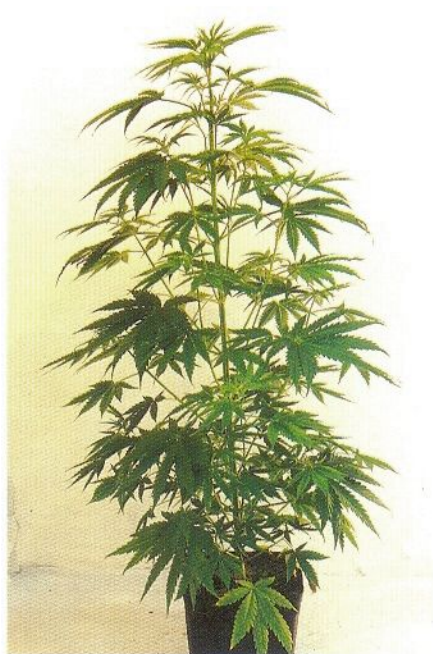
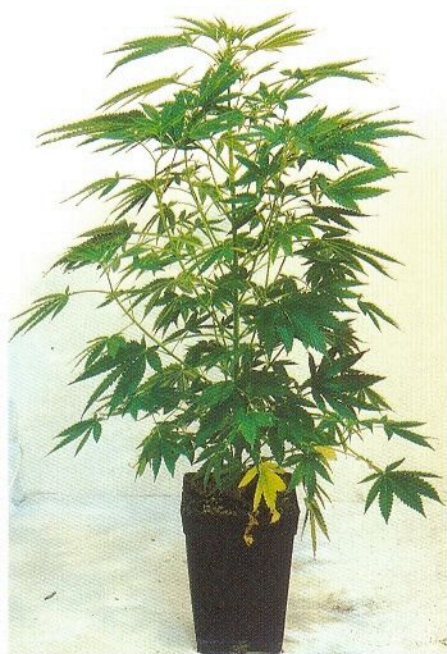


After standing for three weeks under the high-pressure sodium vapor lamps, it is time for the beautiful plants to be repotted again. I would not recommend the plants to bloom without fresh soil. All nutrition in the 15 x 15 pots will be likely absorbed by now. If I don't change the soil, I will have to use fertilizer. This means I will be taking care of the plants totally. It is without a doubt possible to take care of the plants' needs with the use of fertilizer (provided you use the correct fertilizer and know how to use it). The use of too much

fertilizer will always show its effect on the bloom (= harvest = profit) I rather use fresh soil and give my little darlings the position to take care of themselves for the next coming weeks.

The three smallest plants (the stragglers) still have another two weeks to go before I will repot them.



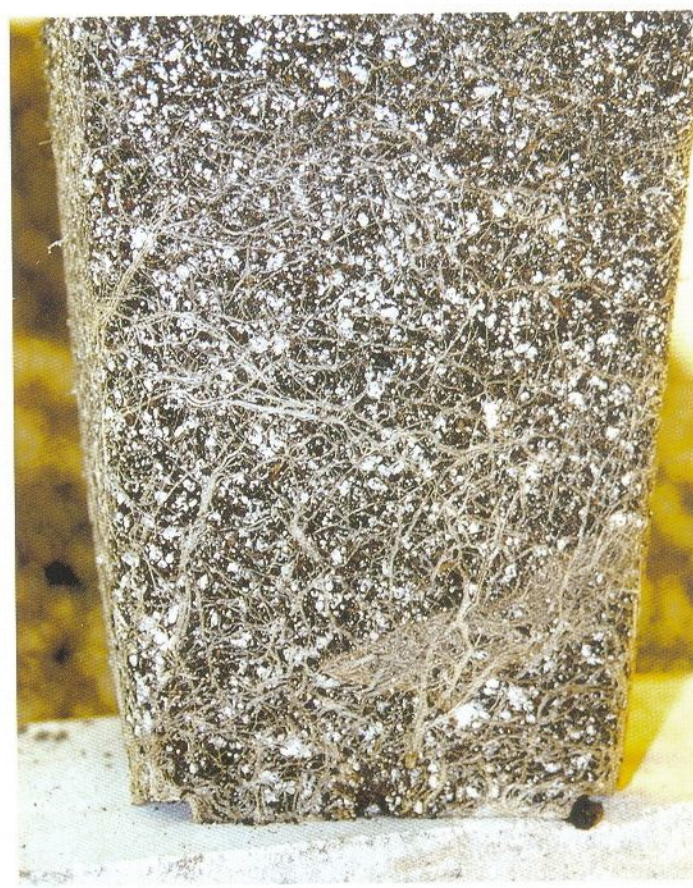
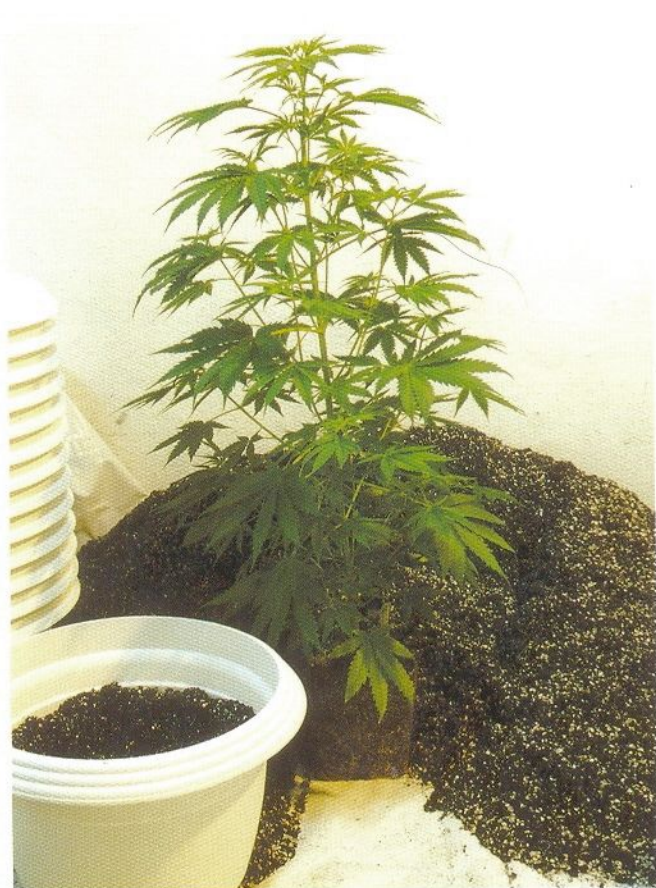


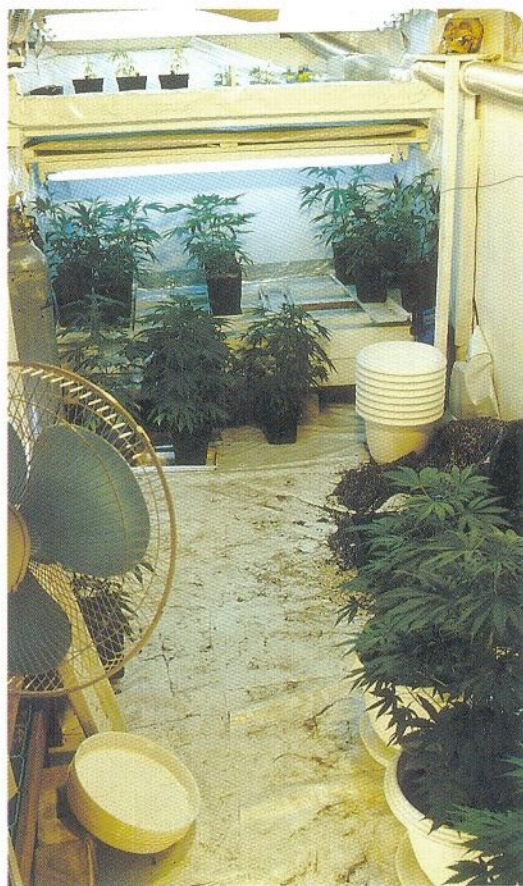
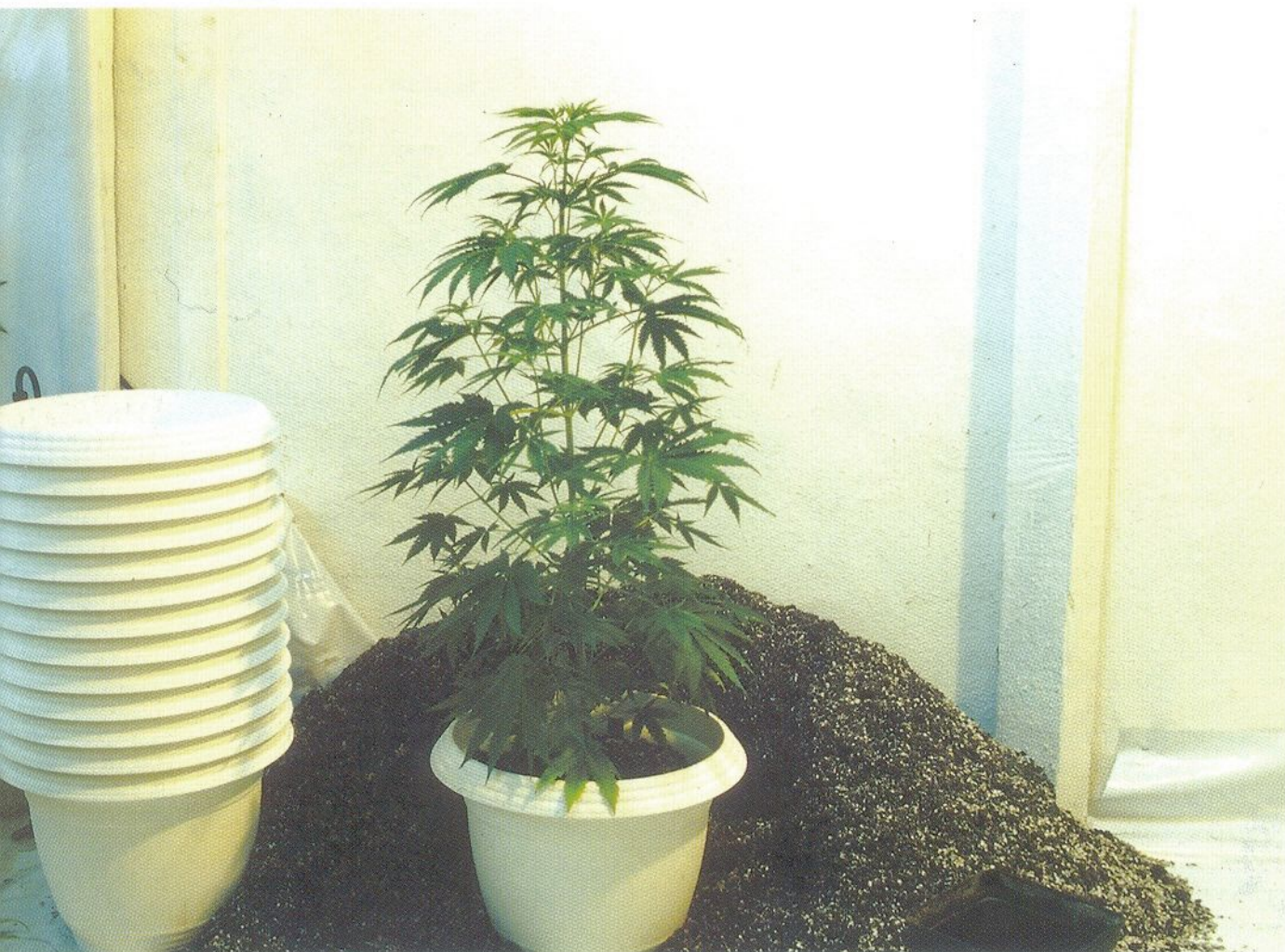


After a nine-week period of growth and very good development, preparations can be made for the final repotting. The next pot size is an 8-liter pot. With these pots the plants will have plenty of nutrition to go through the bloom period without a real need for fertilizers. When a real strong bloom occurs I will, in the last weeks, have to add some fertilizer.



We are talking about another seven to eight weeks that the plants have to go through with only 4 liters of fresh soil. This would not be possible with even the highest quality of potting soil.





Today I will give them fresh soil. I will need about a hundred liters to transplant all twelve plants. The biggest plant has reached a height of 80 cm and the stragglers stand about 25 cm tall.

However it is not necessary to repot the three (stragglers), since the pots still have more than enough nutrition to their disposal. There is no need for me to describe the repotting. After three days under the sodium vapor lamps to recover from the "repot shock", the plants will start to bloom.^(*)

Don't forget that every change, for example the repotting, change of climate (temperature, humidity) changes of light (light duration), deficiencies or shriveling, will cause a certain stress to the plant, something I would like to avoid when possible.

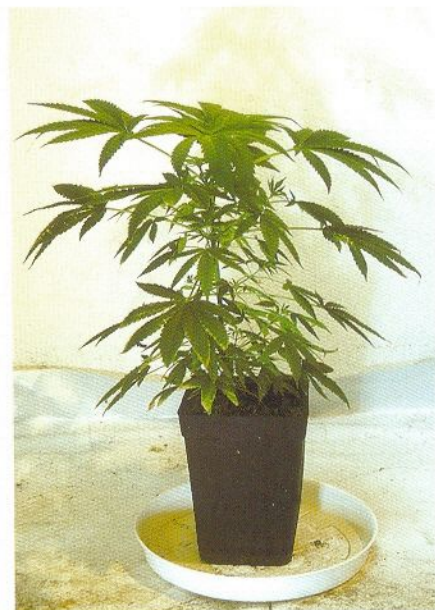
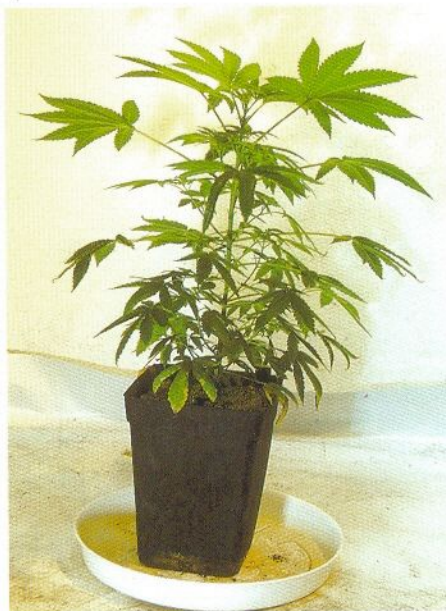
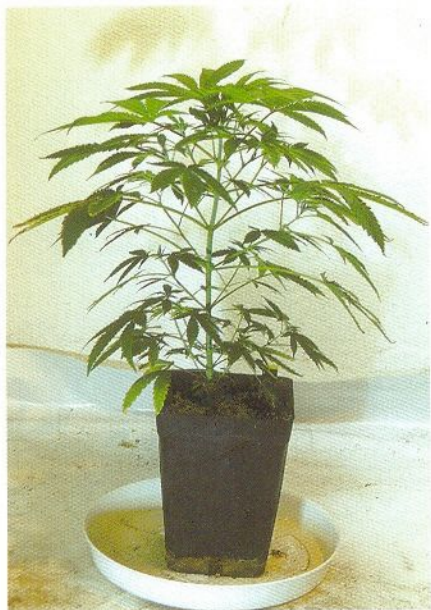
(*) Note of the translator: The author repeatedly states: "now it is time to allow the plants to bloom", etc., however he never states how to accomplish this. Not until the moment I checked my text, I noticed his mentioning of different light colors. I think it would be clearer if it was stated again further on in the text, when the plants are allowed to bloom that from this moment on red lights should be used. (It is noted several times that the fluorescent lights should be replaced by assimilation lamps, however, nothing is mentioned about the color of the light).



Everything looks fine one week after the transplant. Tomorrow the plants will start their long awaited bloom and from then on I will only supply them with light 12 hours a day, and they will begin to blossom.

My three little stragglers needed an extra week to sprout. They have developed quite nicely but are in comparison with the other plants, about two weeks behind





At this moment, after ten weeks, it is time to repot the stragglers for the last time and make them bloom at once. This is an exception (they don't get a week of acclimatization like the other plants).

Here they are all together, the first day in bloom. It is good to see that each has reached a different height. This is normal for plants that have been cultivated from seeds..





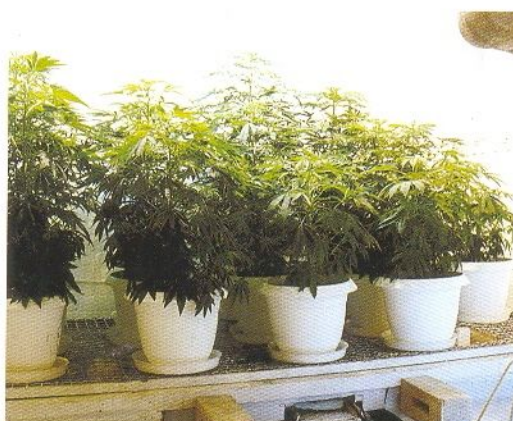
5. SEXES: MALE, FEMALE, AND HERMAPHRODITE

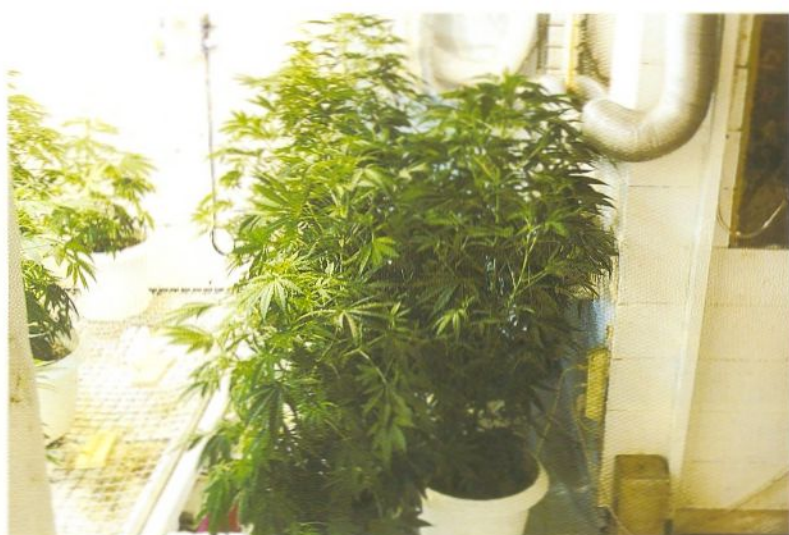


During the first fourteen days of blooming, the plants have grown quite a bit. In the next few days I should be able to identify the males.

It is pleasant to see that everything is right, the level of humidity is 63% and the temperature is 22 degrees.

The plants look healthy and seem to be feeling fine.

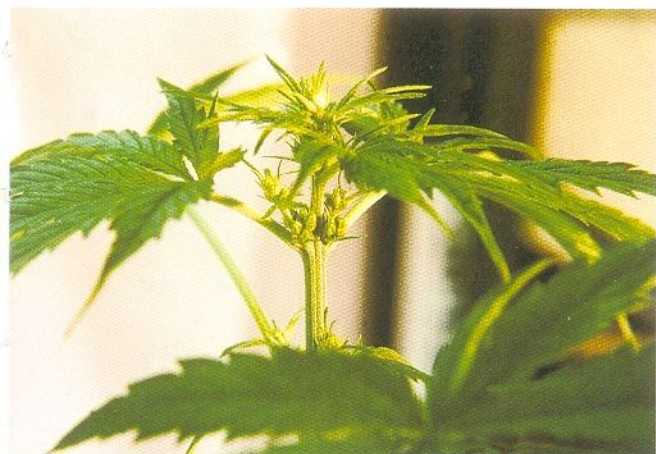




After twenty days I'm able to distinguish the males from the females but it doesn't look good. There are 9 males and only 5 females. You should always take into account these types of unpleasant surprises when cultivating from seeds. That is why I will prepare myself by striking some cuttings of my best Big Bud.

It is not difficult to find the best when you only have 5 females. The three stragglers were indeed all female. At least that was a positive result.





THE EARLY DETECTION OF MALE FLOWERS

Actually it is very easy to recognize them. The first male flowers are already visible after 7 to 10 days. They appear in the highest part of the plant and are only visible as little balls in the leave axils. A few days later they will look like little groups of small balls.



These balls are shaped by the male flowers; 5 sepals which enclose 5 anthers. Within these anthers are more than hundred of thousands of pollen.

You don't need to panic when you see the first male flowers. It will take another two to three weeks before the anthers will break open.

It is not worthwhile to continue cultivating the male plants, unless you want the seeds. They are not suitable for consumption since they don't have the needed flowers and little leaves covered in resin.

A male flower, the first one for this plant.





The early detection of female flowers.

In general, female plants need more time. The first stigmas (the white little hairs) will only be visible after two to three weeks. Some Sativa types made me wait even four weeks before they showed their first stigmas. They are, same as with the male plants, positioned in the highest part of the plant. First it looks like a small ball which becomes longer and from which eventually two stigmas will protrude. The female flower consists of two stigmas, which can catch pollen with their resin, and two sepals between which the seeds will later develop.

Unfortunately the first visible stigmas give no guarantee that this plant is indeed female. There is always the possibility that it will develop into an androgynous plant. By continuously checking the plants that I identified as female, I try to find the androgynous ones.





nated (for example the winter garden). It has happened to me that although I pollinated a female plant, she nevertheless refused to produce seeds..

I assume that the male part of the androgynous plant was sterile. Other attempts were more successful and I was able to cultivate

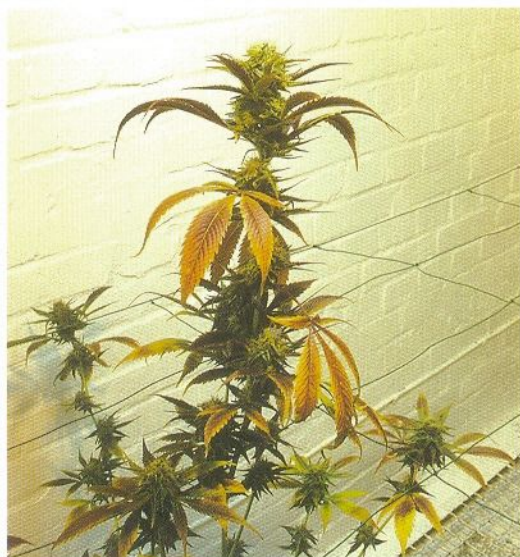
It often occurs that both sexual characteristics, male and female, can be found in the same plant. This plant is androgynous. Androgynous plants can be separated into three groups. The first group consists of plants that show more than 50% of male bloom (60 to 90%). They are referred to as male androgynous plants. In the second group the amount of male and female flowers are equally balanced. The first and second groups are not suitable for seed growing. If I would use these seeds for cultivation I would again get a big amount of androgynous plants. The last group of androgynous plants, the ones with only 5 to 10% male flowers, is interesting. If I'm lucky enough to find these plants, which is not always easy, I will usually consider cultivating some of these seeds (female seeds). To start I will have to separate these androgynous plants from the others to prevent unwanted mass pollination. When the first anthers open themselves, I'll collect the pollen with the use of a little brush. An empty container of a film roll will be used to keep the pollen together. The best way would be to keep it in the fridge. There it will keep for about thirty to fifty days. The female plant that I want to pollinate must be removed from the bloom area to prevent unwanted pollination of other plants. The pollination will be taken care off with the help of the same little brush I used for collecting the pollen. The brush will carefully spread the pollen over the female flowers. After this I will allow the newly pollinated female plant to bloom in the area where she was polli-

98% of female seeds. It is not possible to cultivate 100% of female seeds. Androgynous plants may again appear..





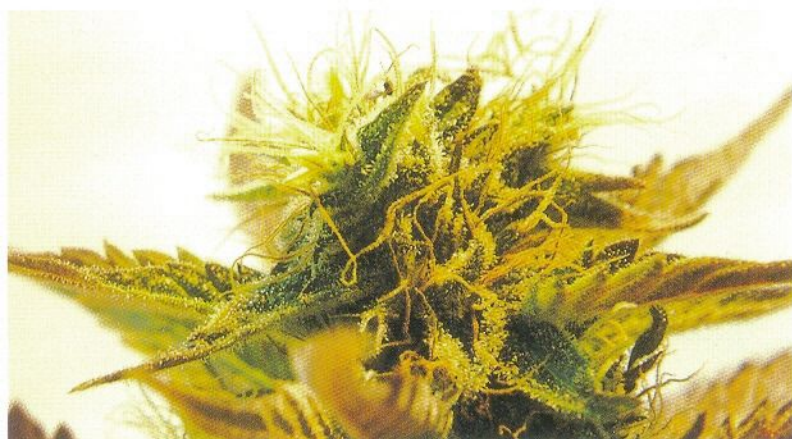
Things like this will happen more often than you like. Sometimes they are there without ever being discovered.



This androgynous plant succeeded in hiding until the very end. I didn't notice until harvest time that in the highest cluster of flowers, a male flower had developed.

This plant was positioned (of course) in the back row and was able to avoid my inspections. She is also responsible for the pollination of an entire row of plants. The disadvantage of this pollination is that female plants will stop putting forth a more productive bloom and instead will concentrate on the development of seed. Her life cycle is herewith completed and she dies. As a result the buds are smaller and you have to pay attention not to drop any seeds in the bag when crumbling.

But every seed that I collect from this plant should be female. More will be written about this in the chapter on multiplication.



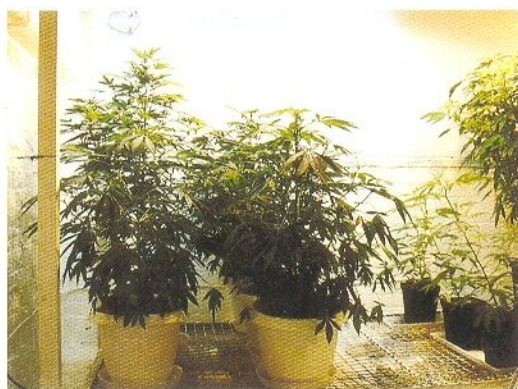
Difficult to find



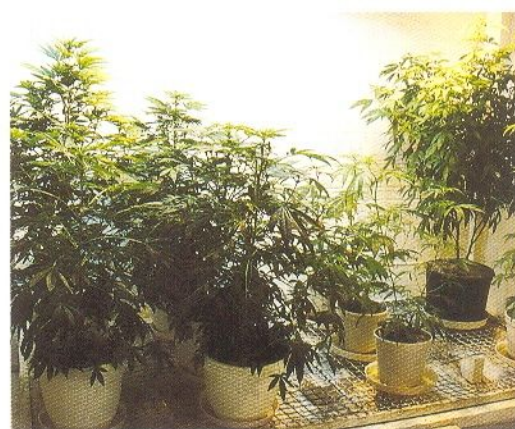




After the removal of all the male plants, a lot of space has opened up which I luckily can fill up directly with some cuttings. I'm talking about four small Silver Haze cuttings, and one big Super Skunk and an Indica which over time have become too big for a mother plant. She is already at least seven months old. The Silver Haze is an almost pure Sativa and needs a very long bloom period of about nine to ten



weeks. (Sometimes a Silver Haze will need up to sixteen weeks) I will repot her while she is blooming even though the 4-liter pot she's currently in still provides her with nutrition, it will not be sufficient to meet the needs of a blooming plant. This is the so-called ex-



ception to the rule. After a three-week period of bloom for the Big Buds, an unexpected problem arises: deficiency signs. Why? I had just repotted them into fresh soil. I checked my entire system first. But everything was as usual, humidity level between 65 and 70%, the temperature 25 degrees at daytime and 18 degrees at night and the pH factor of the water was 7 (neutral). What is causing these problems?

6. A FAILURE: BUT WHY?

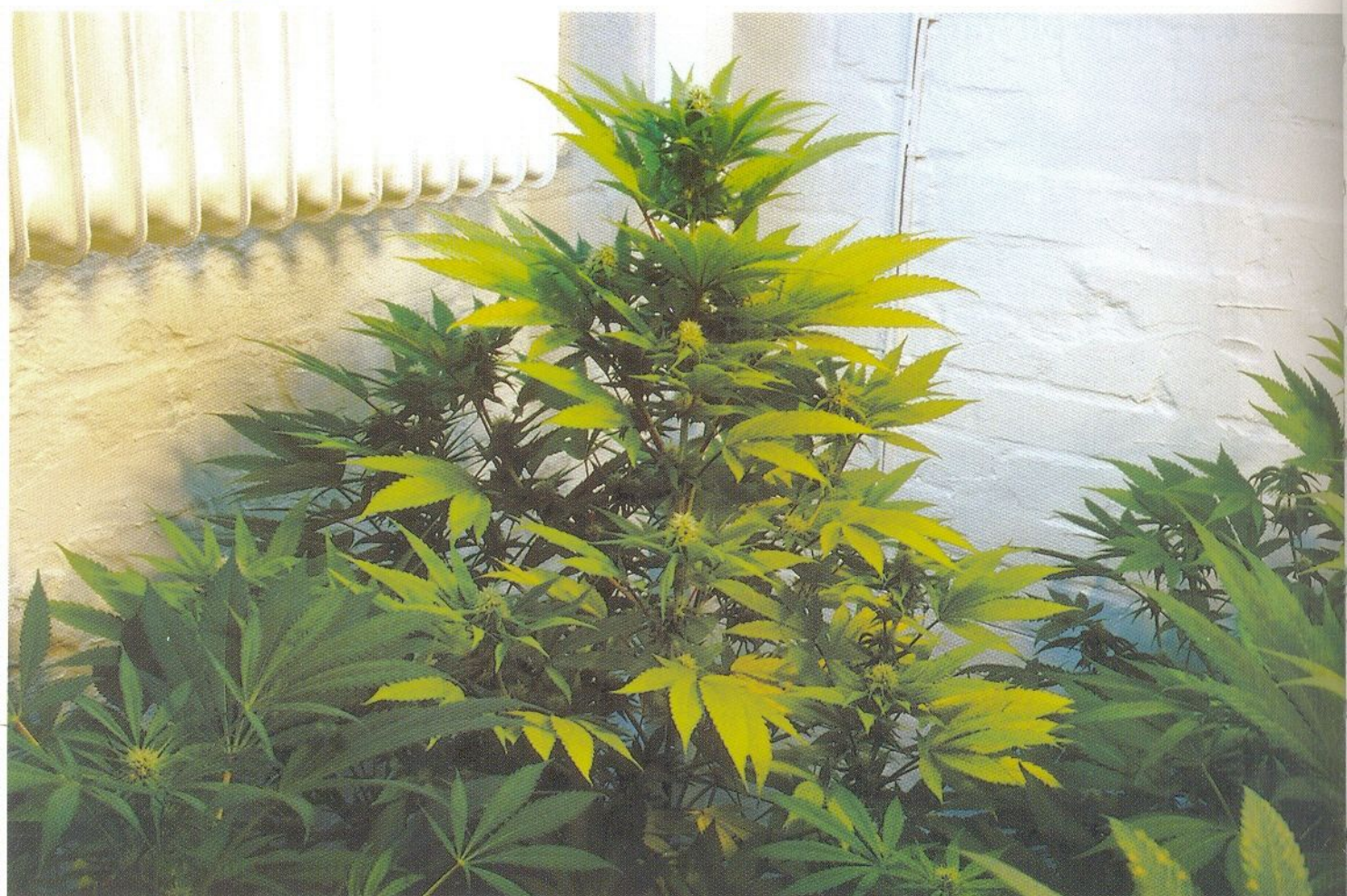


I have to interrupt this passage for a short break. My first attempt to show you my approach in cultivation has failed because of different reasons and I was forced to start all over again. First I had to conclude that the nurse of my father-in-law had indeed stolen from me. She had cut off the tops from the lowest branches of the plants I had cultivated for this book. After that it became evident that the last ready-to-use soil had been mixed very badly, therefore my Big Buds which had until that moment developed very nicely, were only able to find enough nutrition for three weeks. They started to show strong signs of deficiency in ten-liter pots!

I could not believe it. I first thought that the soil was good and able to provide everything the flowers would need. What a disappointment. When I went to the Grow Shop to discuss my soil problem, they insisted that the soil was mixed properly and that my approach was the probable cause of the problems. However, they were prepared to send a soil sample to Holland for analysis. They also insisted that it is necessary to fertilize the soil after three to four weeks. That was news to me. Why would I repot if afterwards I had to fertilize again? This was in contradiction of eve-

rything I ever learned from my years of experience in the field of soil. It was also hard to believe that my cultivation system would suddenly, from one day to another, not perform anymore. To find out if it still made sense in any way to continue working on the book, I decided for the first time since ages to mix my own 500 liters of soil. In this personally mixed soil I planted some cuttings of the Big Bud.

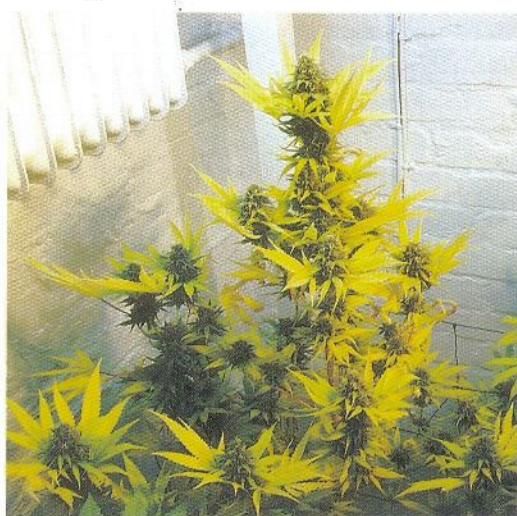
And look at the result: the plants are showing their normal luscious dark green leaves. So my system was not the cause of the problem. When the results of the analysis of the sample came in from Holland, I received the confirmation that the soil was deficient, no phosphorus, no nitrogen but a lot of sulfur. Maybe the soil at the Grow Shop was not mixed as conscientious as was needed? Of course not! People change their mind all the time. Like now. The soil was not to blame and neither the system. No, this time let's blame the fertilizer.



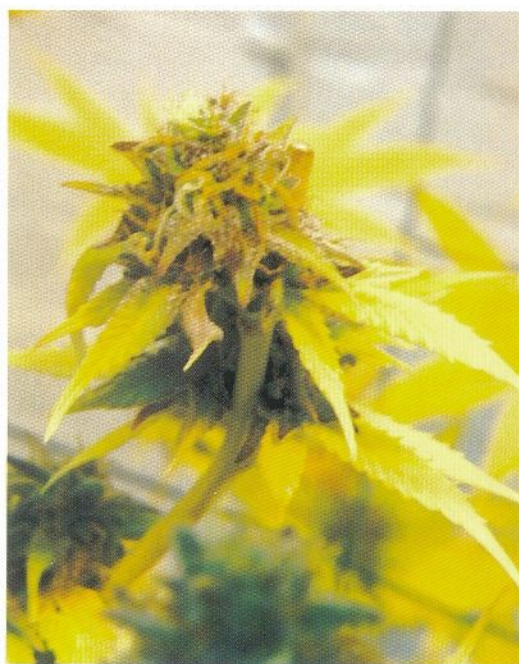
I believe there are enough excuses. You can only learn from mistakes. The soil I'm using since the disaster is always personally mixed and I have never had to go through a similar situation. The mixture I use can be found in the chapter on soil.

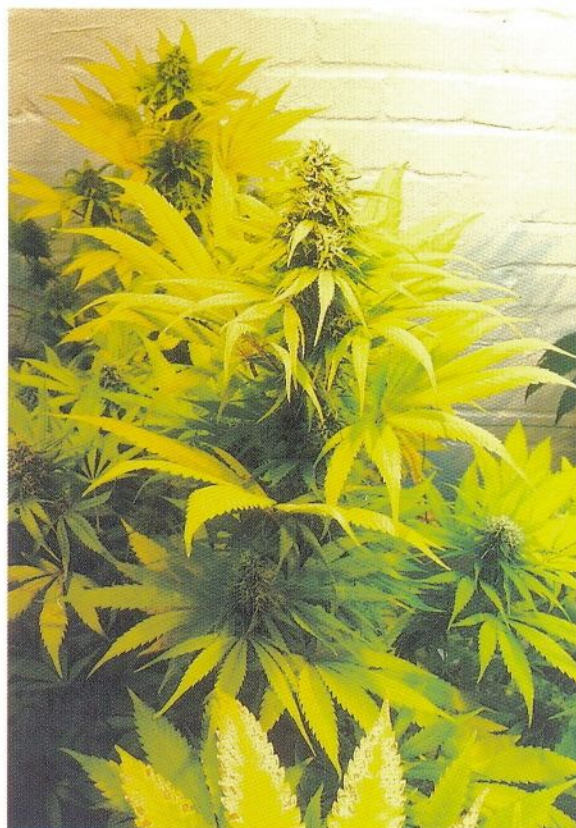
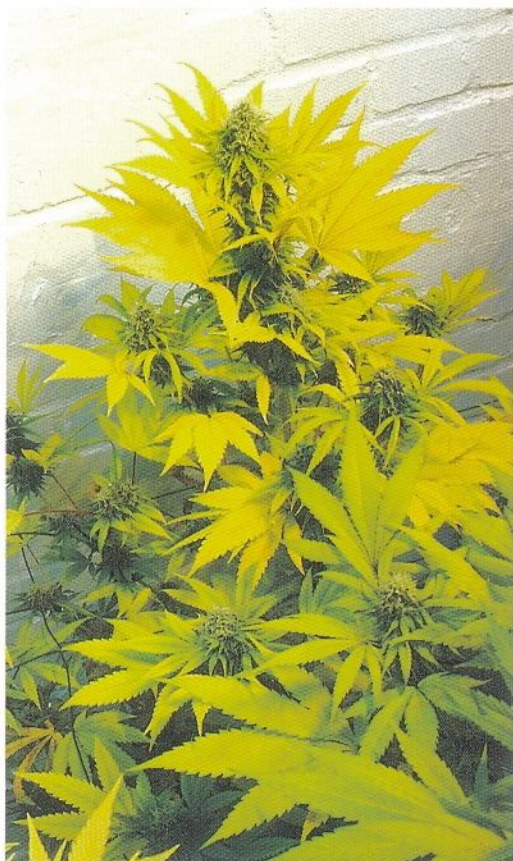
The whole experience had one advantage. I was able to show you the differences that occur when using good or bad soil.

The typical demonstration effect: for years everything goes well until the moment you decide to show people and then everything fails. ►

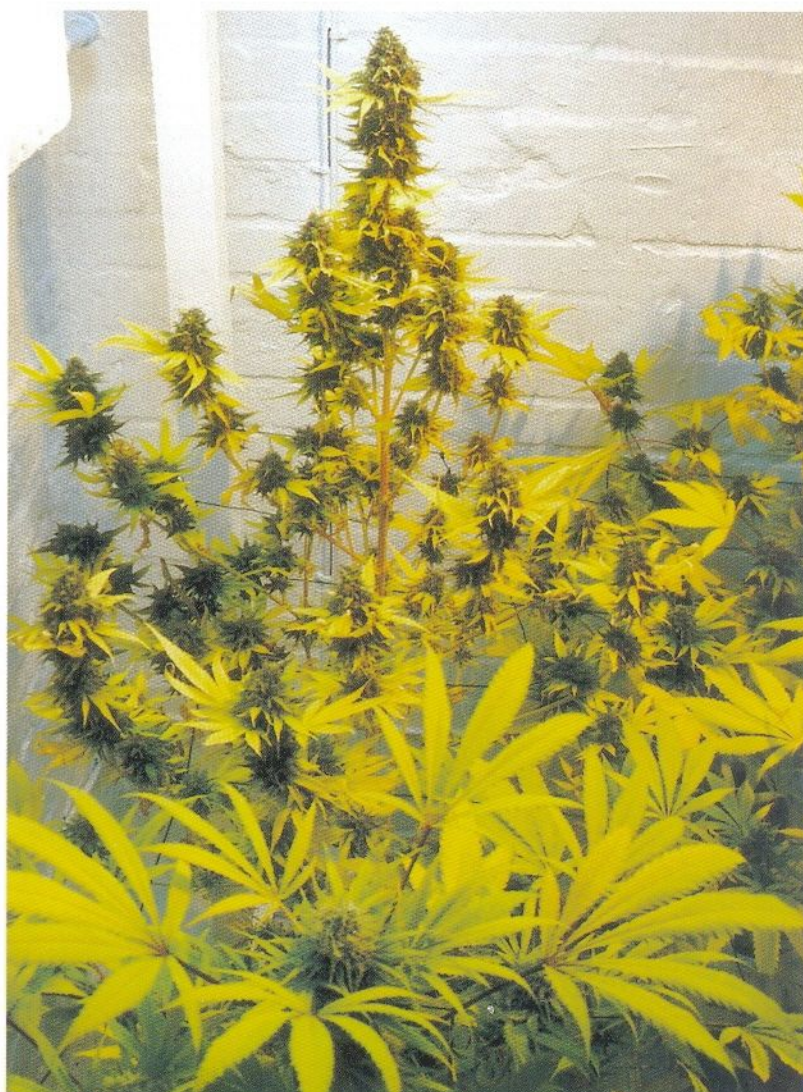
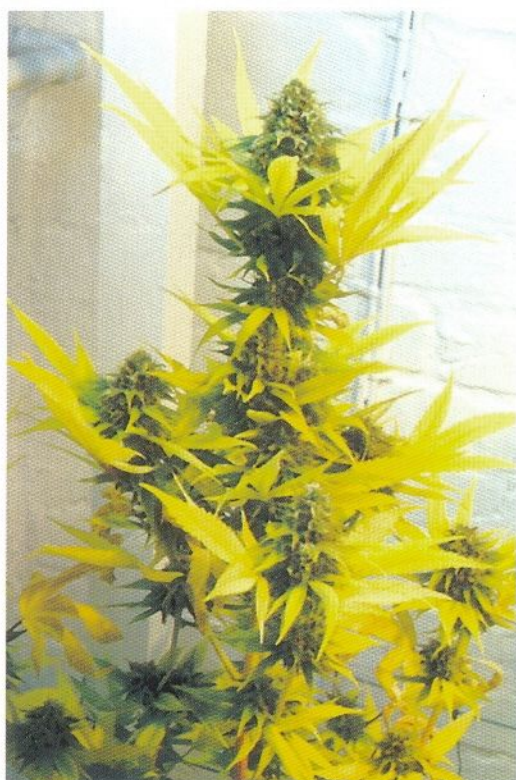


This branch is missing its top. This proves to me that somebody has been cutting. ►►

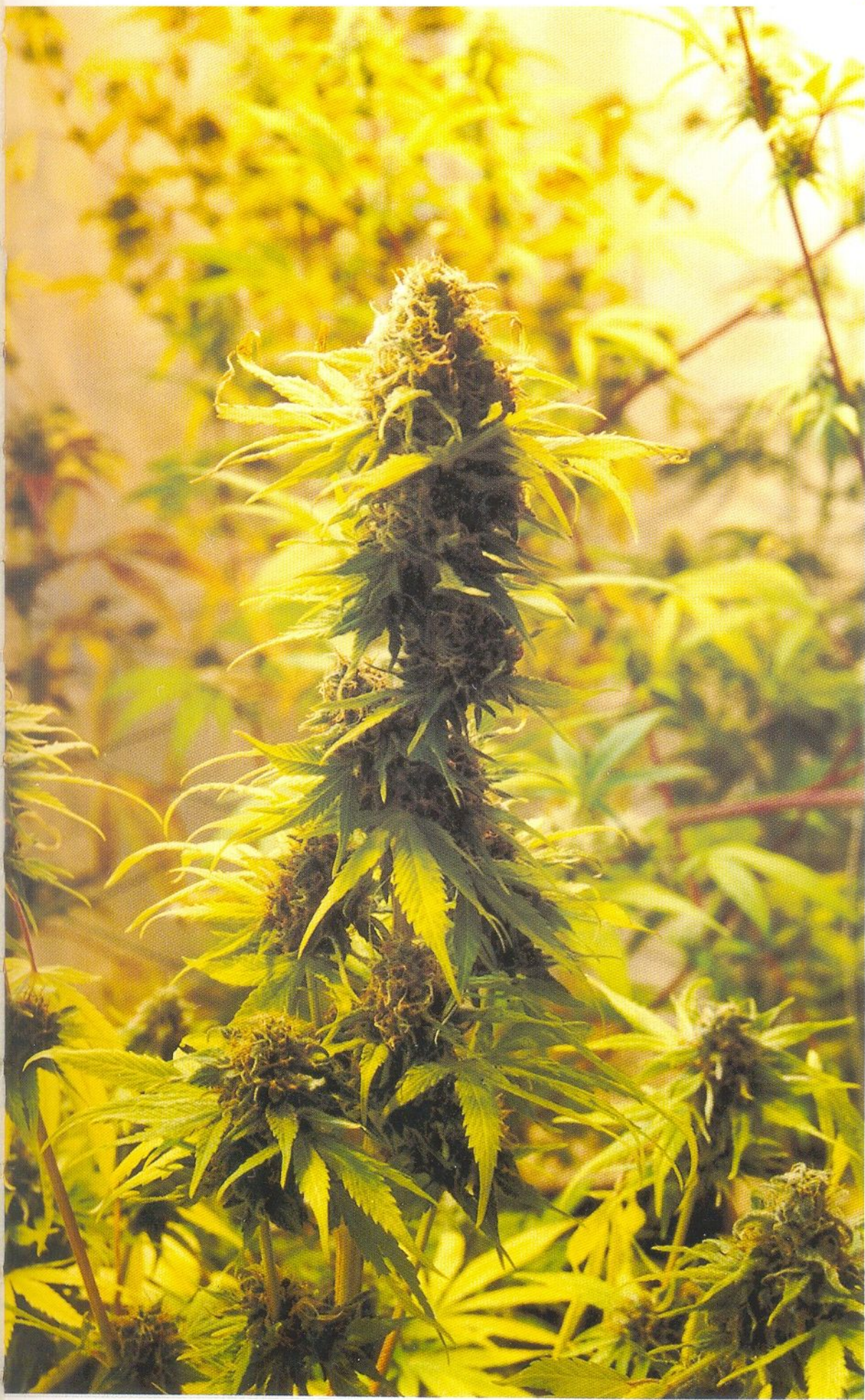


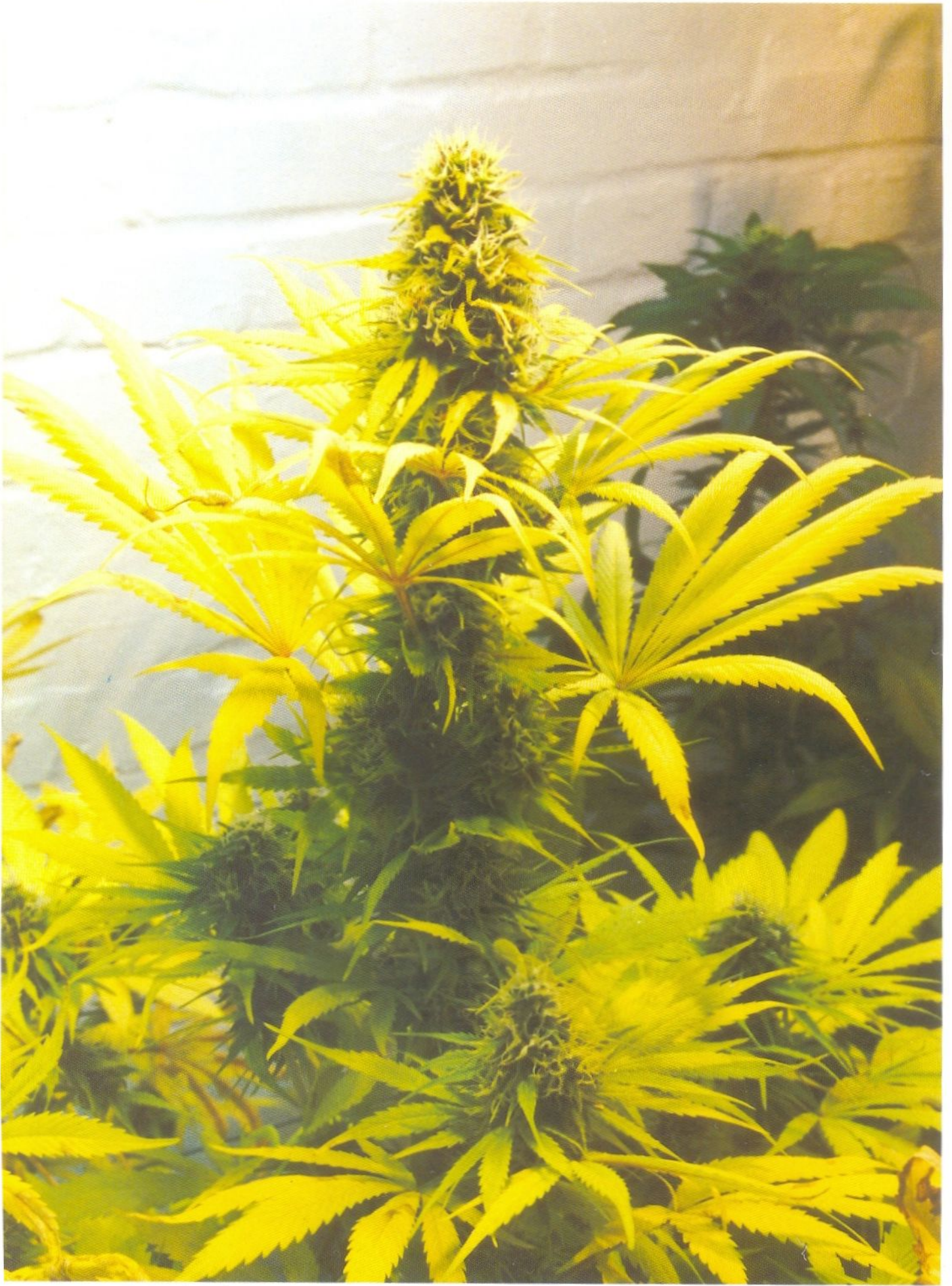


Within a couple of days all leaves turned yellow and dropped off. The fact that the plant still produces flowers only proves that she also blooms with bad soil. The average harvest per plant was 30 grams. We are talking about a loss of at least 70%.













7. Second attempt: Oasis in bloom

It is hard to believe but when I went out to buy new Big Bud seeds, I also bought some female Oasis seeds. I had no problems with sprouting the Big Bud seeds but all sixteen showed abnormal coalescence.

Every pot and plate had to be washed and to ensure no new spinning mites would enter the blooming area, I sprayed the germinating room as well. Just to be on the safe side!



A good thing, I still had the Oasis seeds. From the ten seeds nine germinated without any problem. Only one needed a bit more time, it's a straggler. I have chosen Oasis to be able to show you blooming when using good soil. The second unpleasant surprise I had to accept was the uninvited presence of spinning mites. And this happened only a couple weeks before the Oasis was supposed to start blooming! This meant I had to clear out and clean up the whole blooming area. I sprayed the walls and the floor to capture the eggs and the larvae.

In the first three rows I have the Oasis plants, next to them three Mexican Sativa, behind them a Juicy Fruit, a Hawaiian Indica and in front of them a Super Skunk mother plant. The soil I use for my beautiful plants has been mixed by myself and the system I use is still my own.

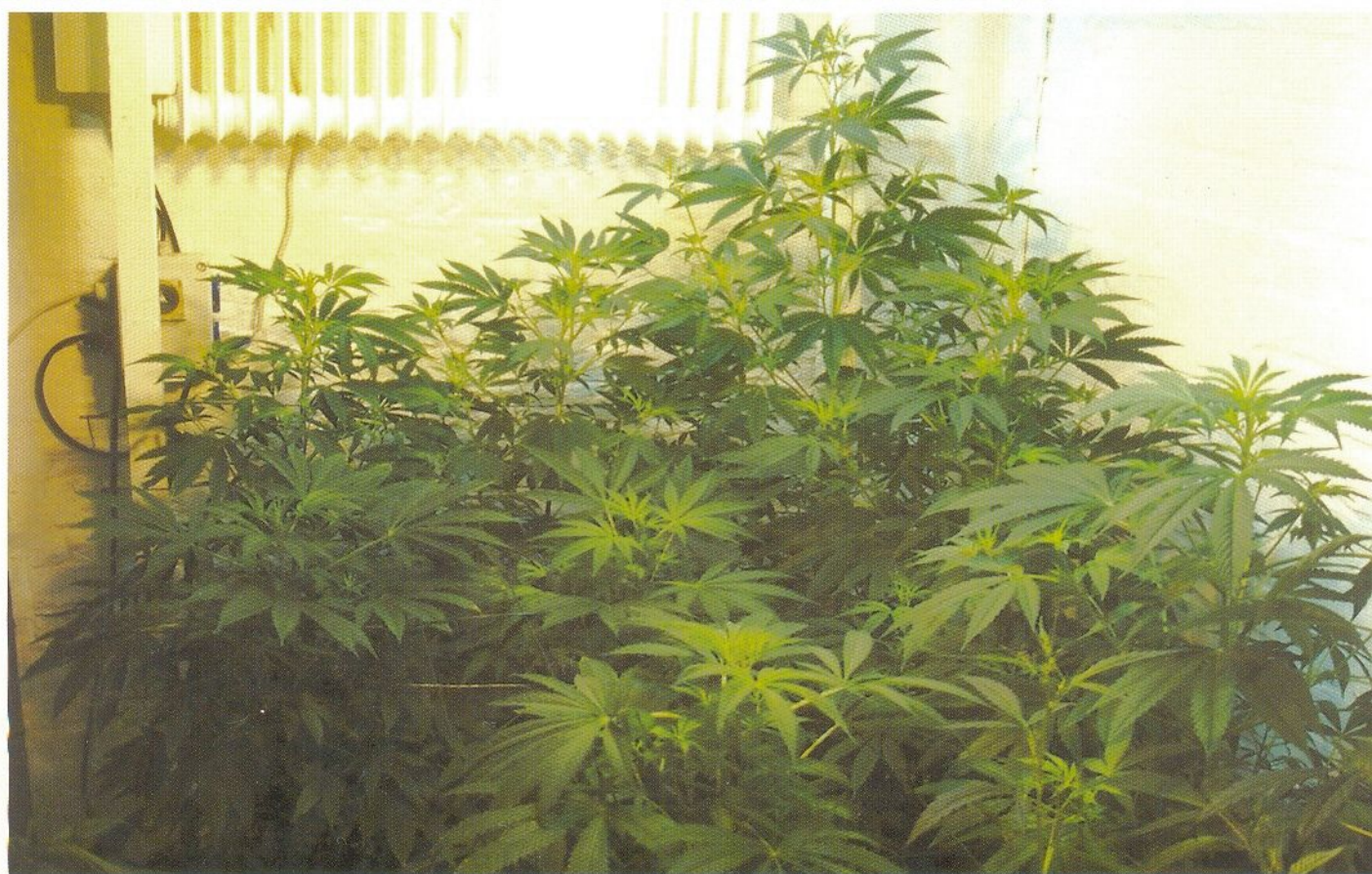
The Oasis plants went through a growing period of ten weeks. The Mexicans are cultivated from seeds while the Juicy Fruit and the Hawaiian are grown from cuttings.



◀ The little Oasis straggler has recovered quite nicely. You can hardly tell it apart from the other plants.

When the plants have been standing in the flowering room for a few weeks, it is time for me to look out every day for male flowers. There is always the possibility that hermaphrodite plants suddenly show up. Especially when cultivating female seed, the likelihood is high.

Until now I'm lucky, there is no androgynous plant to be seen but that does not mean a thing. They are very hard to detect.





The Oasis plants have been blossoming for two weeks. They have become bigger than I expected. This means I will have to pull down the top of the plant. I will use a multi-purpose spool of thread.

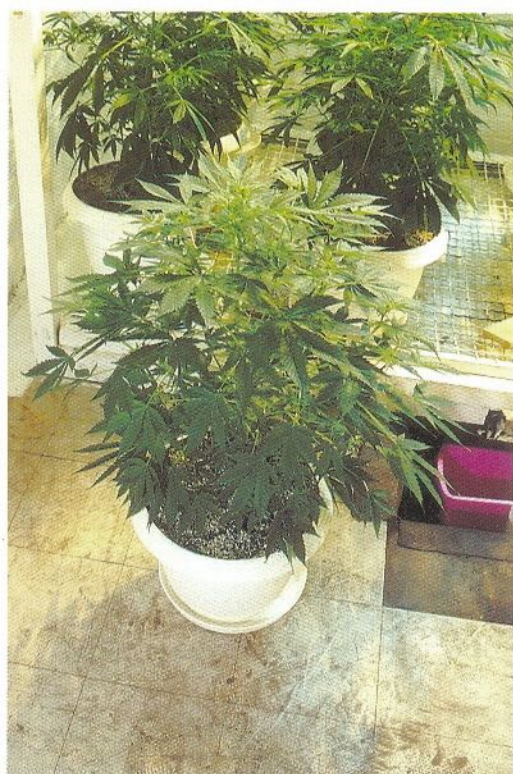
First I will cut from the spool a piece of thread of 60 centimeters. I will fashion the end of the thread into a U-shape and lay it around the highest part of the plant. The loop will be drawn closer in such a way the stalk of the plant is able to grow unhindered. The other end of the thread will be attached with a loop to the wire gauze. I will use the lowest piece

to pull the top down in different stages as far as is needed. The plant should not be burdened with more than a couple of centimeters a day. It could take a few days before she's pulled down the whole way.

It doesn't mean the end of the world if by accident the stem breaks when pulling down the plant. I have broken countless stems, especially in the early beginnings. I was able to save these plants by using one of the next two methods. Either cut them off or treat them. It depends on which phase the plant is in. When the plant is in the growing phase no time is wasted. The broken top will just be treated as a cutting.

Things are different when the plant is in the flowering stage. I will then try to save the top by wrapping the damaged spot with sticky tape. Before I use the sticky tape, I will put a piece of hydrophilic gauze on the affected place to prevent the tape from sticking to the stem and to prevent new damage when removing the tape. Sometimes I have to use a stick to support the stem. Treatment is not always possible when the plant is in the flowering stage. After a flowering time of four to five weeks, the break will not heal anymore. The stem or side branch will die off.

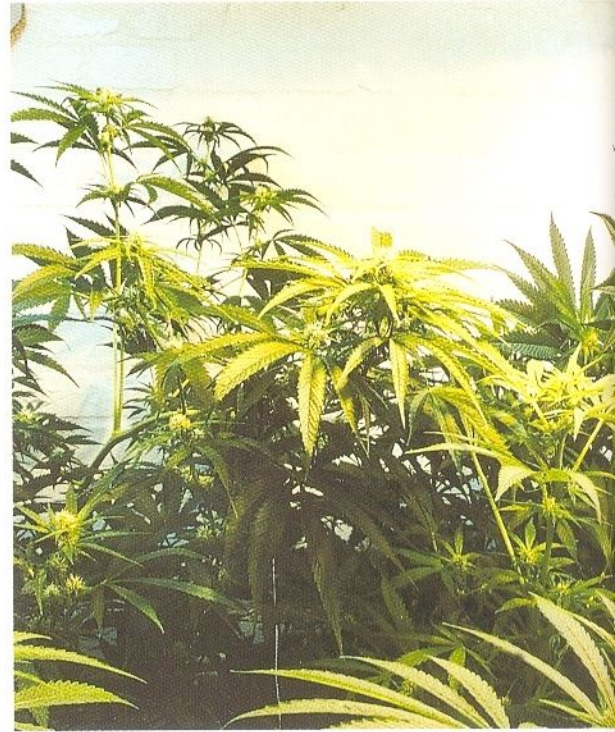




After three weeks of developing, the straggler hardly grew at all. I had put him in the front row to keep an eye on him. So it was not a too big surprise when I noticed him. There was only a sporadic female flower to be found. The plant had to go, so I put it in my winter garden. For me this plant was a lucky strike. Lucky in the way that I was able to take clear pictures.

There were hardly more than fifty male flowers to be found in the whole plant and if not more are going to show up we may conclude that we have a female hermaphrodite. However, I don't want to produce seeds, I want flowers.





In the past seven days I have pulled the top down further until it reached the desired level. It looks as though I have to pull all Oasis plants down; they keep on growing and growing. I have to admit that I underestimated this sort with regard to their height.





I'm barely finished with tying down the left side of the plants at the back when the other side starts. I will also have to tie this side down to prevent the top of the plant from growing away from the light. The Oasis has a bloom period of eight to ten weeks and still anything can happen. It could happen that when you tie down the plant, the big leaves might lie on the flower clusters from the lower branches. This is enough reason to remove some of these leaves. I will only remove two to three leaves a day, never more than really needed, to prevent the plant from too much distress. The big leaves are used by the plant for photosynthesis (the conversion of light into chlorophyll).

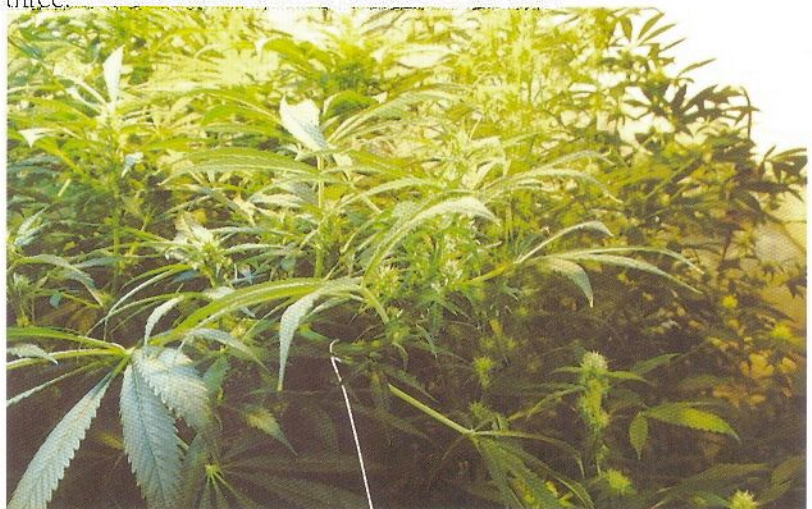


▲ After a growing period of 3 weeks.



After a four-week bloom period I'm very pleased with the Oasis. The acceleration of growth has passed and now only the flowers are developed.

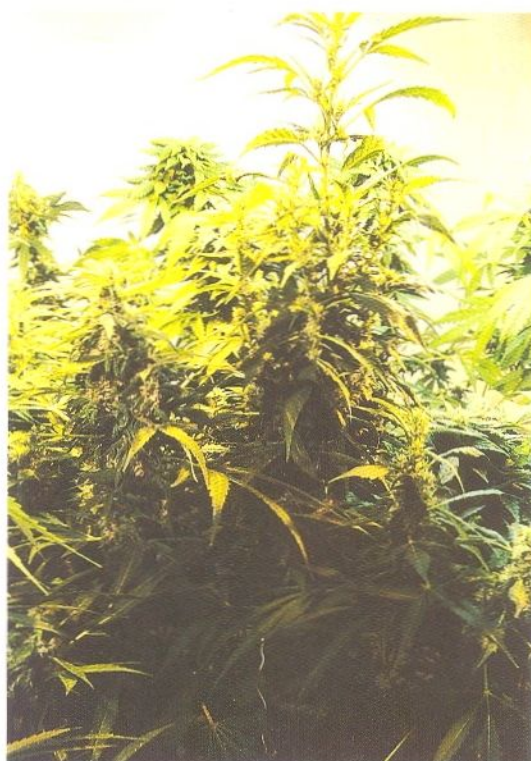
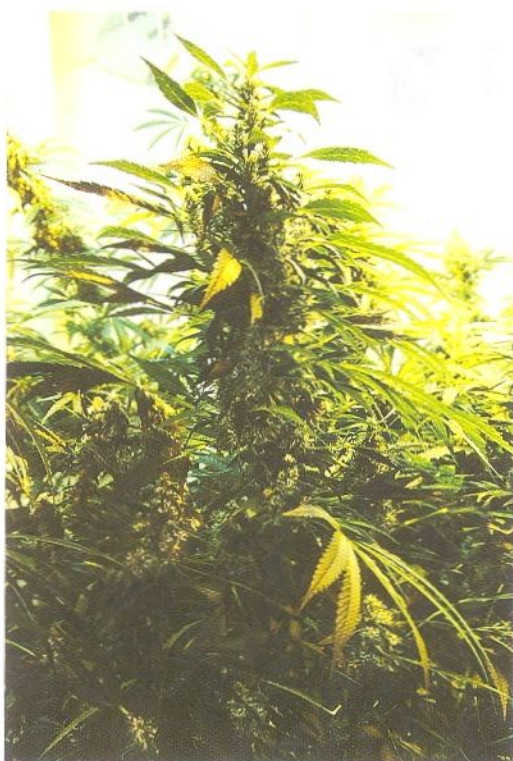
I had to tie all Oasis plants down except for three.





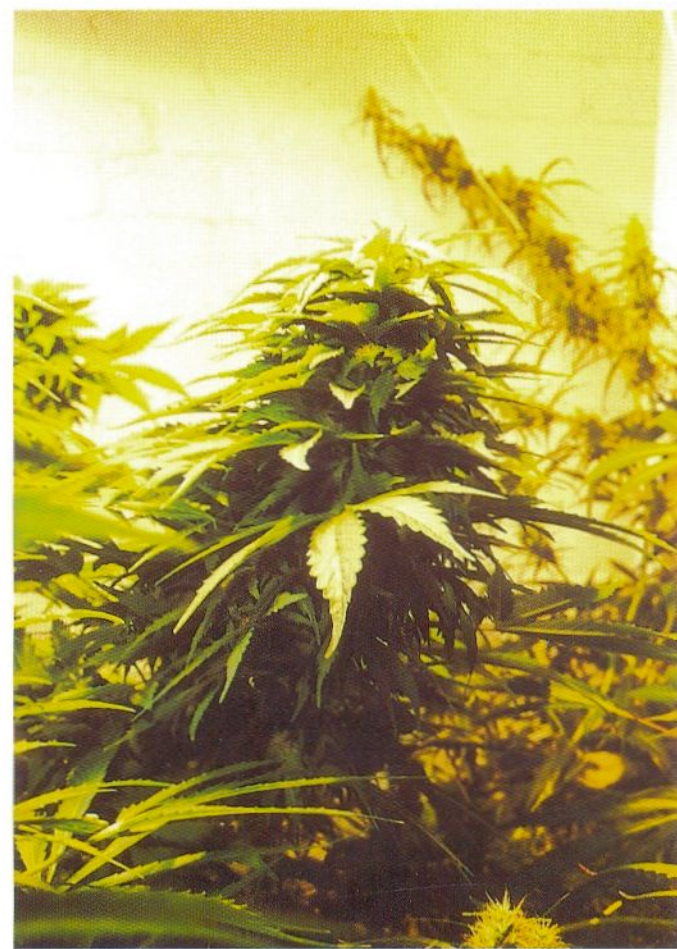
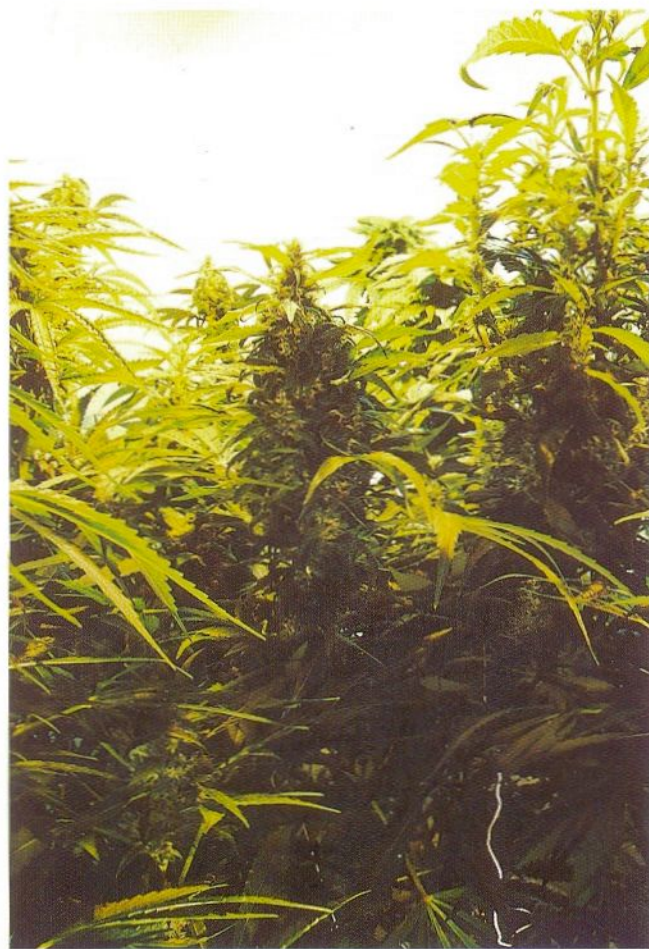
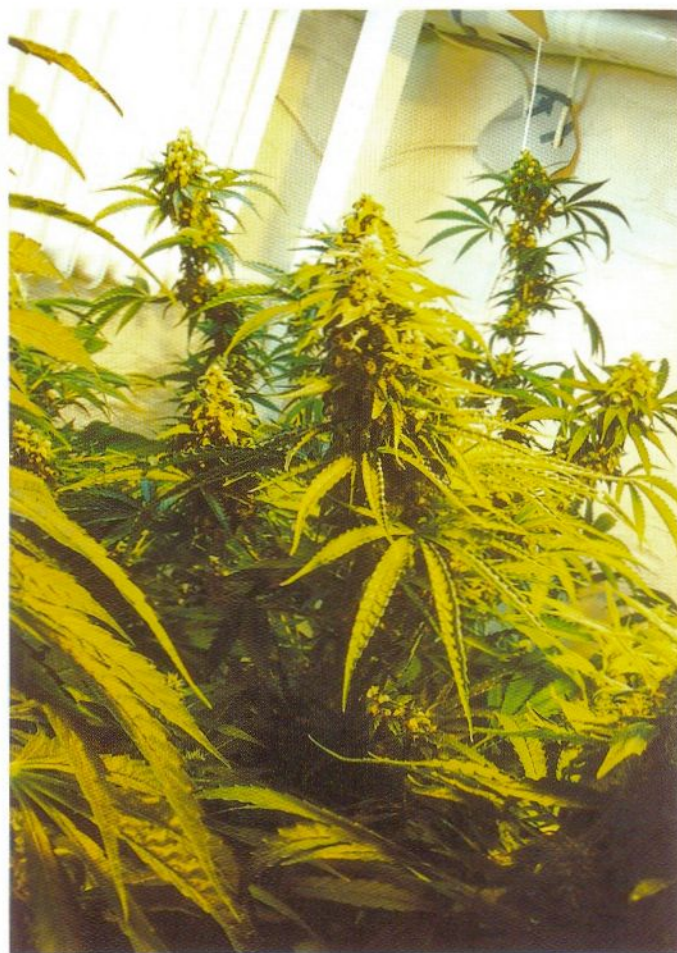
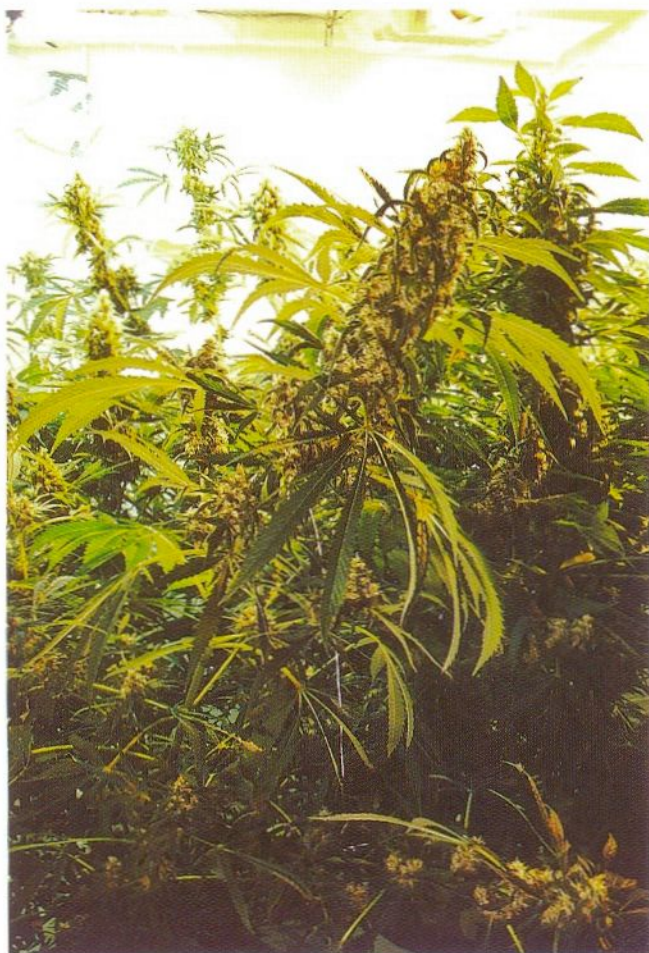
After seven weeks the clusters of flowers at the top of the plants have become so heavy that I am forced to tie up some of the stems to prevent them from breaking.

The biggest leaves of the plants are showing the first signs of deficiency: they are turning a bit yellow, a sign for me that it's time to fertilize (with Terra Flores).





▲
*I have been looking at my
little darlings with a great
feeling of content.*





A small demonstration of what can happen in a flowering period of seven weeks.

Above you can see the Big Buds which started to show signs of deficiency after four weeks. It all ended after seven weeks with a very small harvest of only 30 to 50 grams in dry weight. For the Big Bud, which usually takes over the whole flowering space of the culti-

vator, it's a bad result. I would just like to state that the Big Bud is a good species with a high yield. The bad result can only be blamed on the bad soil

Down below the Oasis is in full bloom. They still have another three to four weeks of flowering to go.





They continue to flower and flower. Eight weeks have already passed, but I cannot find one single plant that is ready to harvest.

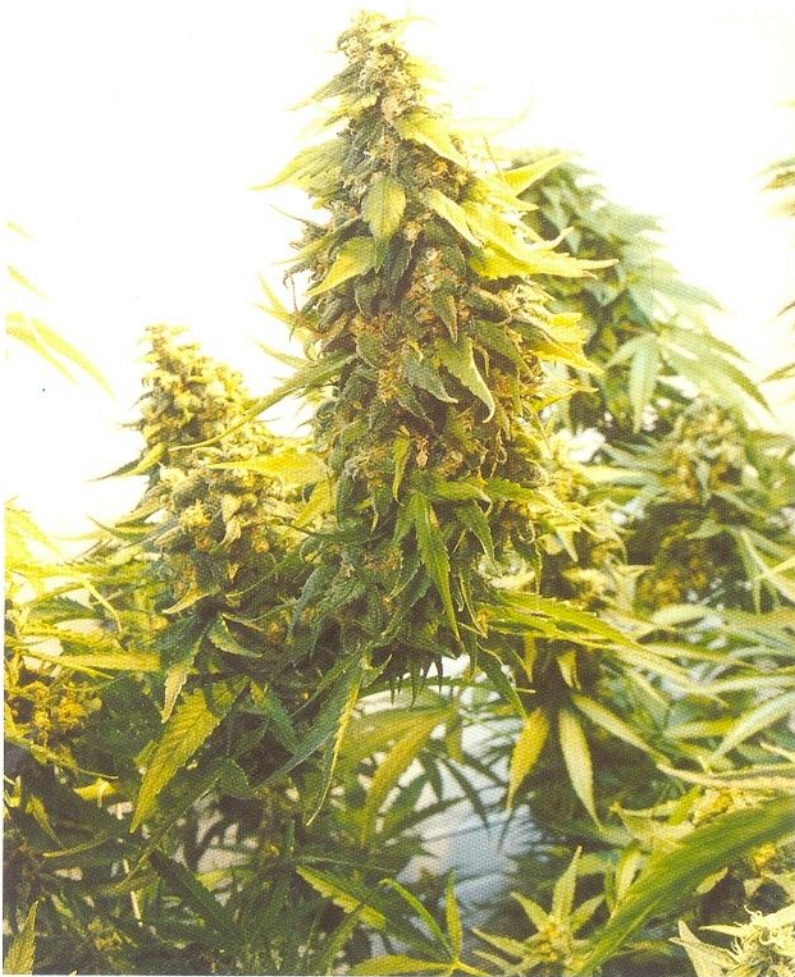
After nine weeks the first plant is "ready" and the reaping may start. The other plants are not yet ready and will continue to flower for a while.



Every second day the Oasis plants now need about five liters of water with the maximum amount of fertilizer (Terra Flores).



8. Harvesting the seeders

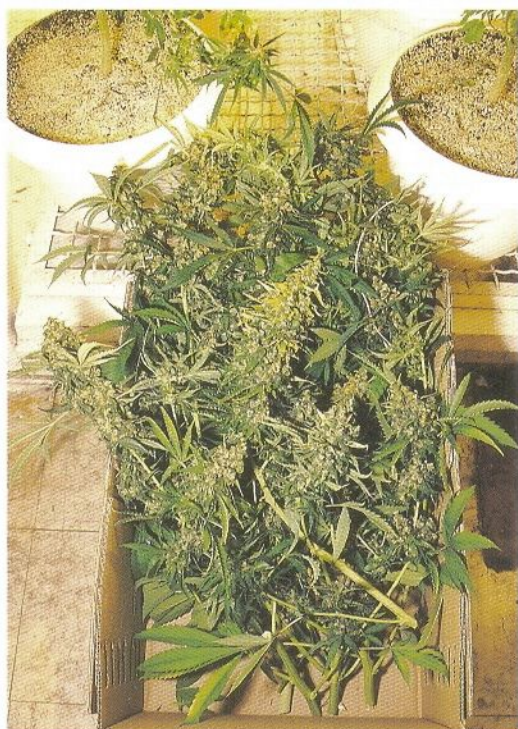


She is ready! And, as usual, the first plant I can harvest stands at the back row. It is a beautiful, big plant with a lot of side branches, almost all of which I had to tie up. This is how I imagined the result of nineteen weeks of sweat and tears would be. No other way.

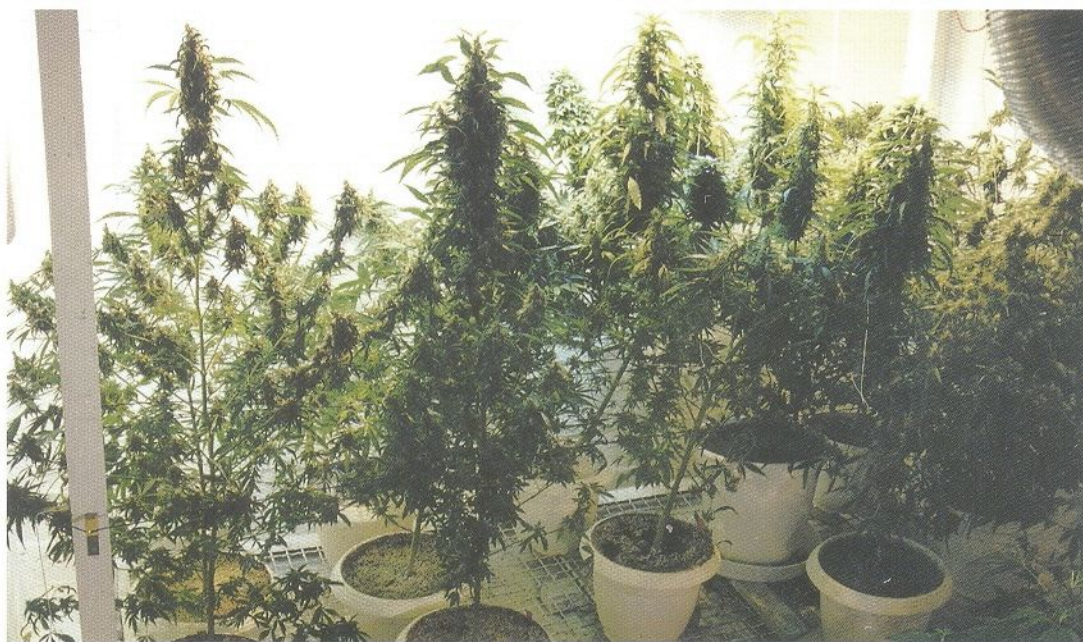
After ten weeks of growing and nine weeks of flowering the tops are strong and the yield is very high. It will be full moon next week and if it had been possible I would have waited. I will come back to the subject of the moon later. I don't consider it an old wife's tale; observations have confirmed the facts. But I will harvest the plant now.

More than 50% of the stigmas are already brown and the leaves are slowly yellowing. Let's start!

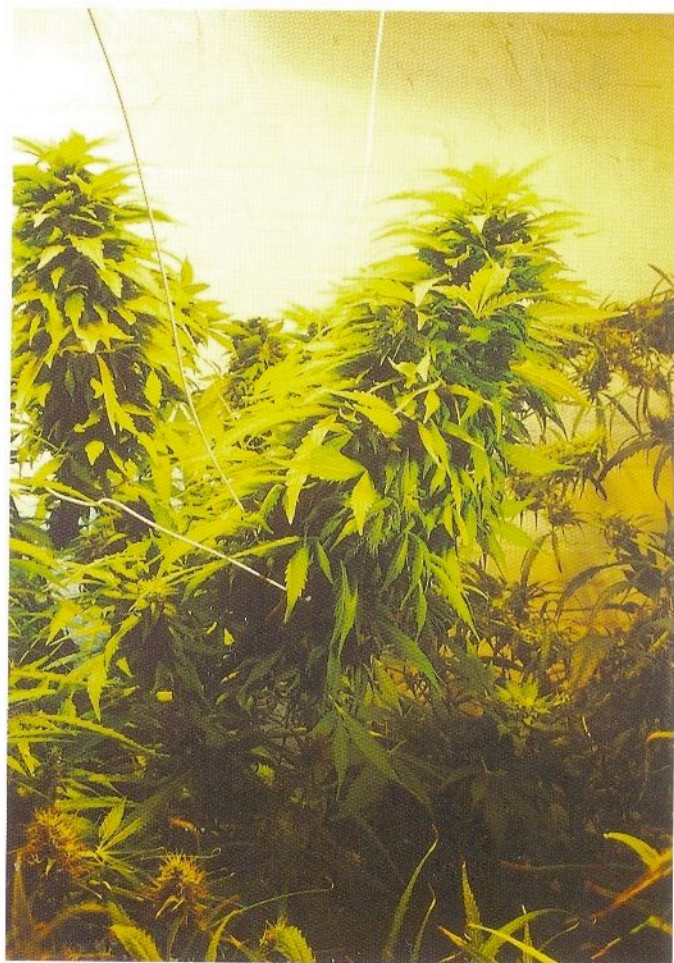
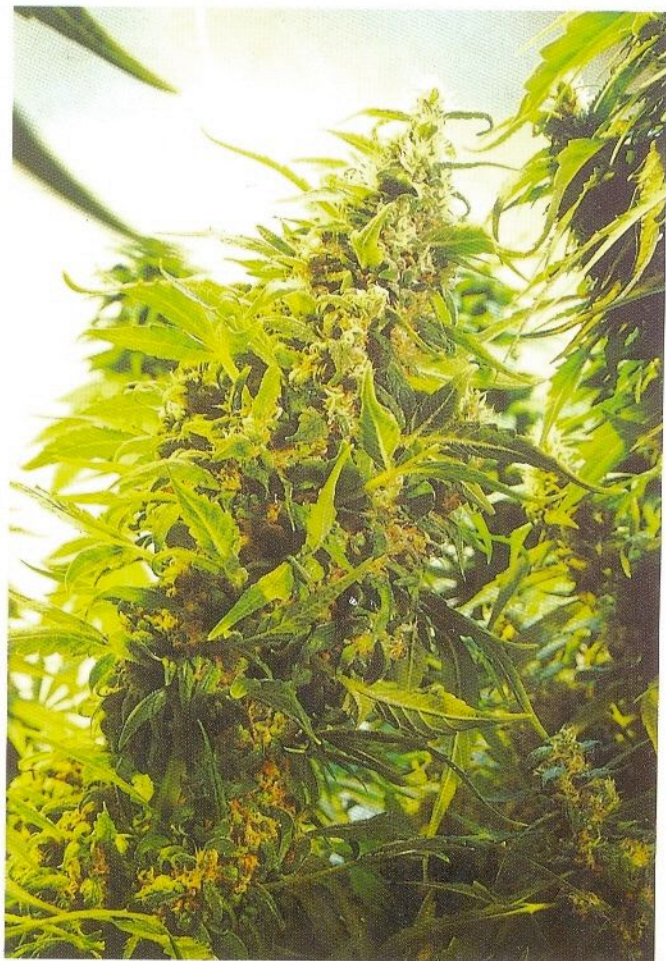
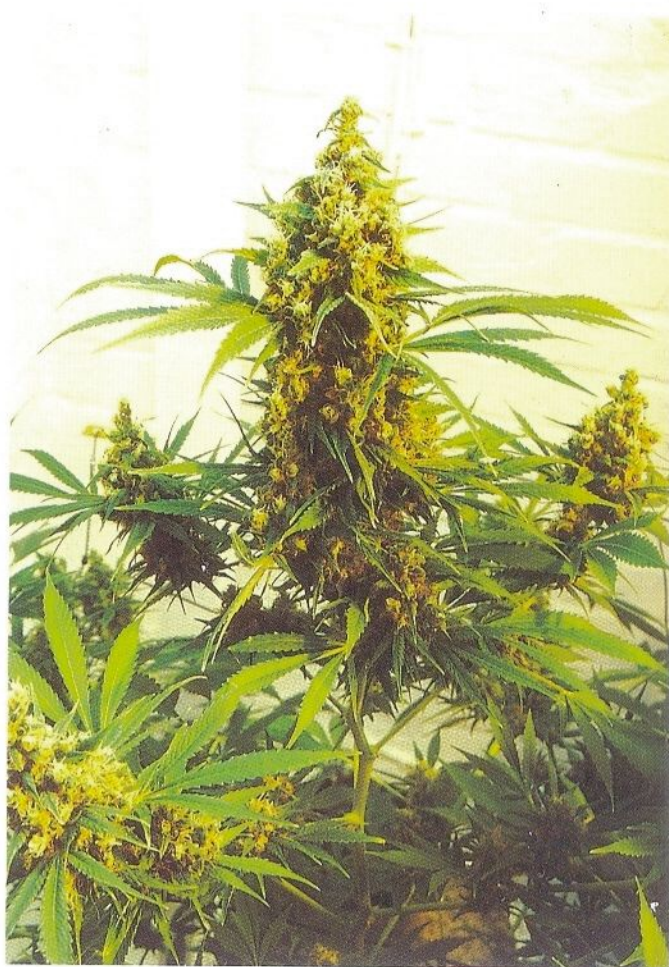
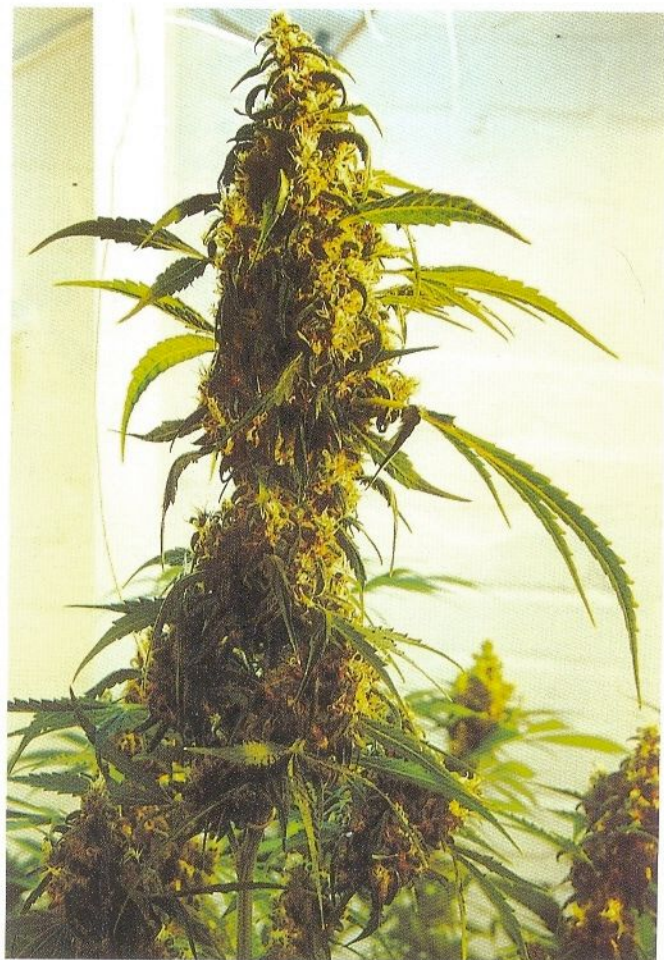




I am pleased. The head of the Bud is about 30 cm and therefore still belongs to the smaller size. This plant did give me more than 130 grams in dry weight, which is satisfactory for a plant cultivated in soil. The plant stood in a 10-liter pot.



The other seven Oasis plants will have to wait.





Things move on a week later. The next four plants are ready for harvesting. Three of these plants have reached a normal height. They are the only ones I did not have to tie down. Nevertheless, they are beautiful plants of about 150 centimeters. It is the same height I remembered the Oasis plants were. The fourth

plant ready for harvest does not only stand out because of its height. It also has totally different flowers.

The three left-over plants exceeded everybody's expectations. They are not ready yet and still need a few more weeks. All the leaves

are dark green and new clusters of flowers are still coming up. So why should I harvest? Only because the stated ten weeks are over? Of course not! I will wait until they are ready.





As I have mentioned before, the differences between plants of the same variety can be remarkable. This time the differences are substantial. The only thing they have in common is their scent and their taste. Above: The

branches on the left side belong to the upright tops. They are, as I described them, normal plants with a height of about 130 to 150 centimeters. The branches on the right side belong to the giant top that lies between the branches. This was one of those plants I had to tie down. It was the only Oasis plant with a lot of leaves — at least twice as many as the other plants.

It is almost unbelievable. The whole time I was just hoping that the plants would get through the ten-week flowering time. It is a fair amount of time. And now we get this: three plants that want to go on flowering!





After the harvest I took a better look at the tops and I decided that one of them had started to mold. To prevent the mold from covering the total top, or worse, the whole harvest, it was important to act immediately. The top was put aside and all the mold-affected parts ended up on the compost pile. The other not yet affected parts were loosely

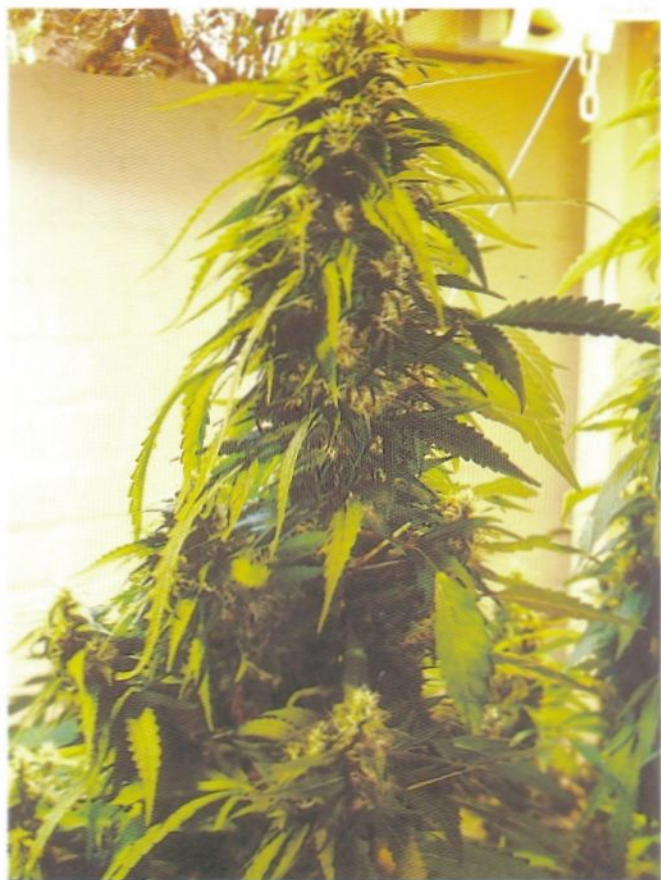
put into a casket from which I could easily observe them during the drying period. Of course I immediately searched the rest of the harvest but fortunately I did not discover any more.

In the picture below, you can see in the back row what a plant looks like just before the harvest. This makes it difficult to check the

flowers for mold during the flowering period. It is easy to imagine how mold can develop this way because the cluster of flowers had many leaves. Added to this was the fact that the plant was positioned at the back row and was therefore probably not getting the benefit of the air circulation. This situation reminded me that big buds like that should be inspected more often.

The humidity level could not be blamed, since it was a constant 50% to 60%. Of course I inspected the other three flowering plants immediately but fortunately I did not discover anything.





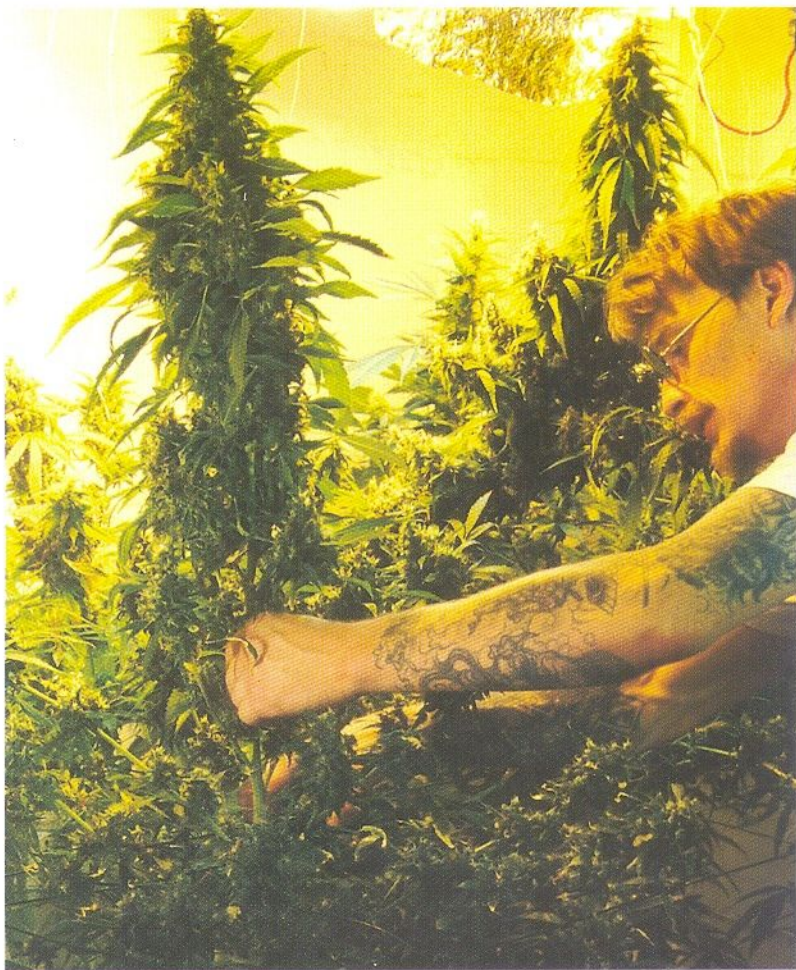
I often stand before the plants, hardly believing that new stigmas (the white hairs) have developed while twelve weeks of flowering have already gone by..





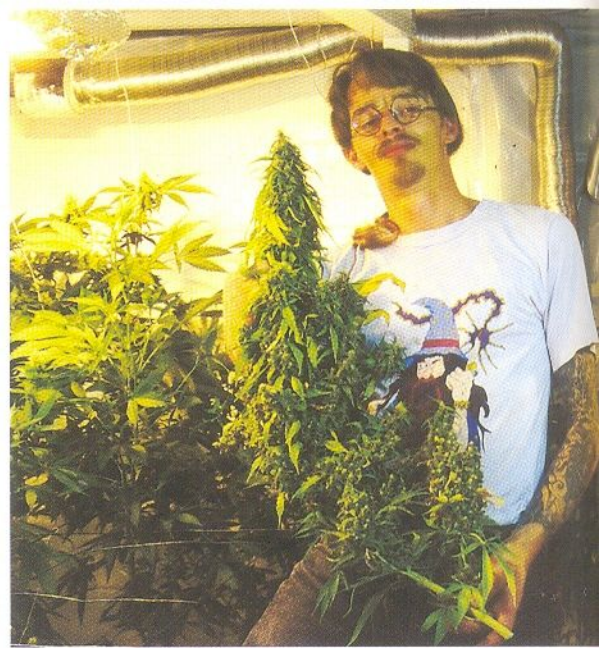
Today, 20 July 1997, the moment finally has arrived. I can harvest. After fourteen weeks this is a grand moment. Until now they are the biggest Buds I have ever harvested. This doesn't mean however that I will not try to grow bigger ones in the future.

I just want to mention that I used CO₂ dosage. This result is only possible with a good working system. However, a good dose of luck is also necessary.



Fantastic!

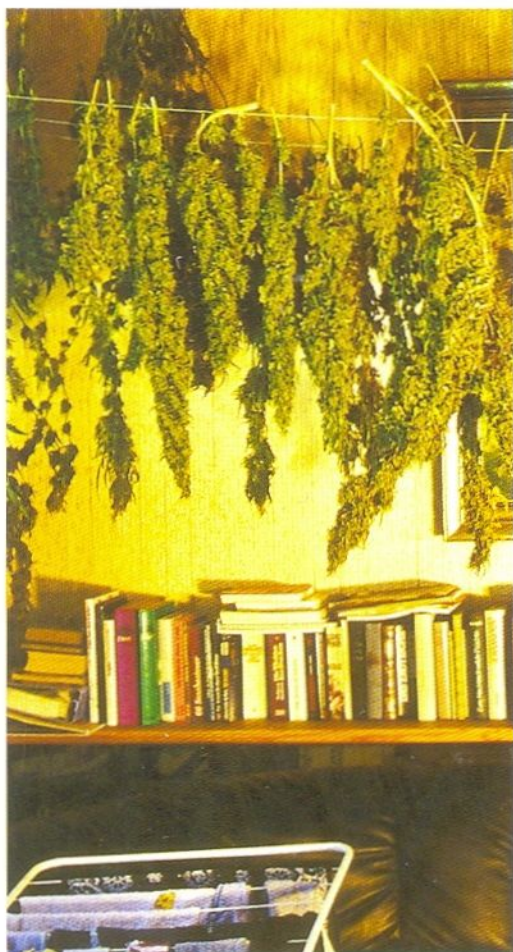
It felt great to use the scissors. The stems were so thick it was not easy to cut them. But where there's a will, there's a way.





This time I am pleased with my harvest. Unfortunately I'm not able to state the average weight of the plants this time. I can however give a precise description of the other plant (the one with the mold), because I used it to brew beer and bake cookies. For two cookies I used 25 grams apiece and for the beer I needed 110 grams. In total a fair 160 grams. Of course I don't know how heavy the big tops are, the ones you can see here above.

The left one weighs an impressive 55 grams, the middle one weighs 35 grams and the two lower branches weigh 50 grams. That is a total of 190 grams (dry weight). The right top weighs 135 grams, but where does the top start? I removed the leaves and the stem and it was still 90 grams (dry weight). I was very surprised because I had only ever seen such a yield in Holland.

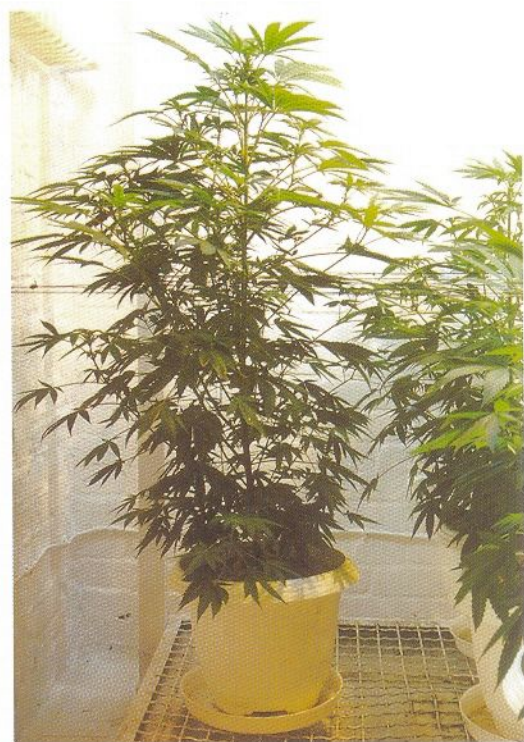


The Oasis is an Indica variety with a strong (tiring) narcotic kick, a lovely flavor and a high yield as you can see.

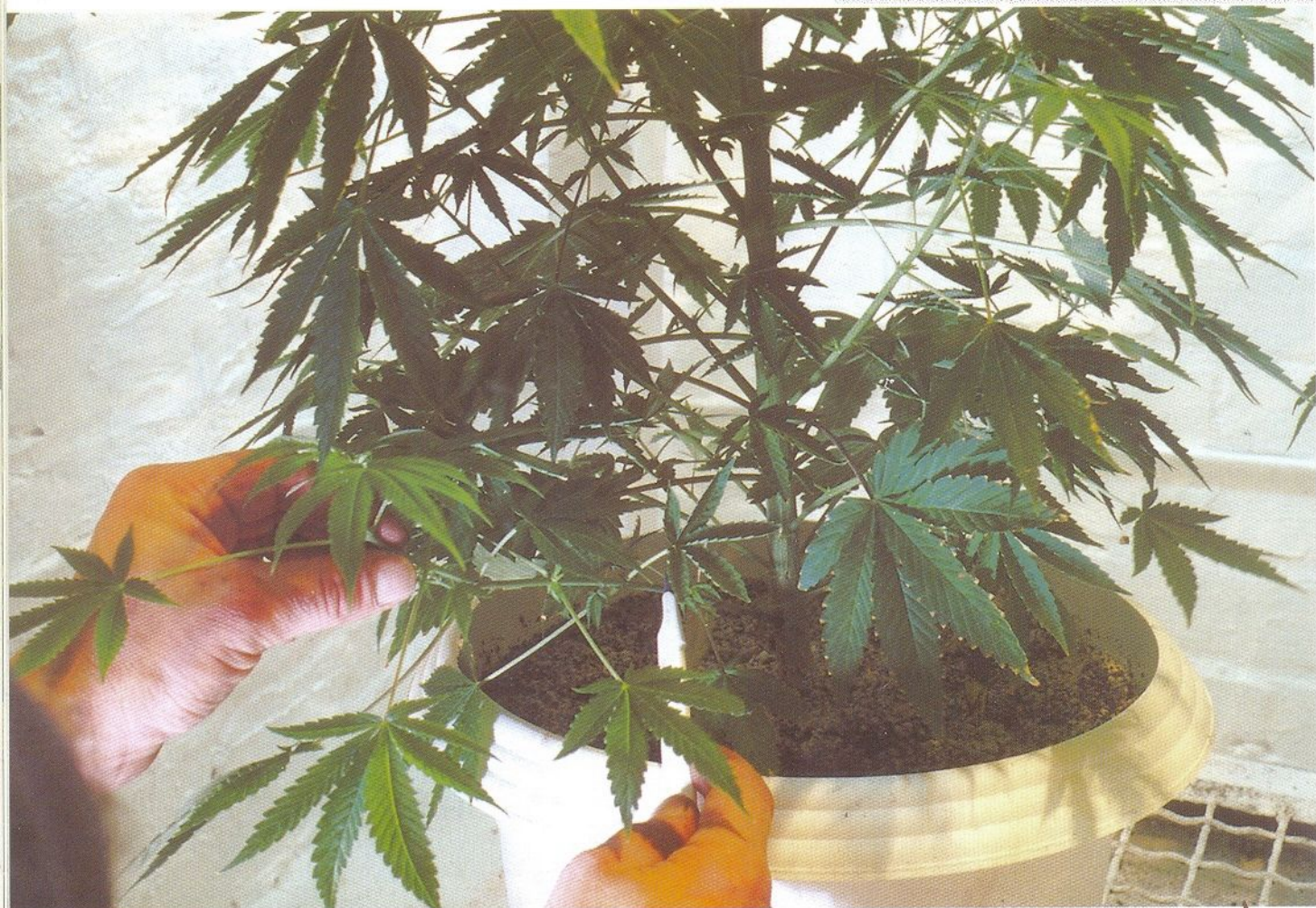


9. CUTTINGS

I will describe here how to strike cuttings — the method I like best. After about twenty days I have identified all female plants and it is now time to start cutting the cuttings. I have picked the most beautiful plant to use as a mother plant. Those of you who have ever reaped a plant would know that the lowest branches hardly give any yield — there are no big buds. The plant saves her strength and nutrition for the top part because that is the place where the big clusters of flowers develop. Since the lower, smaller branches take strength and nutrition from the rest of the plant, it is advisable to remove them immediately. This has two advantages: In the first place the highest flower clusters will be able to develop better, and in the second place you can use the lowest branches as cuttings. It is also important that all cuttings are from the same plant, so that they all have the same DNA.



Otherwise the cuttings will differ in their ways of growing. Cuttings from the same mother plant will be as identical as twins. If you take different mothers, you will get different results from the cuttings.





1. To ensure that the striking of the cuts is successful we will need to use a sharp knife or preferably scalpel. Under no condition should a pair of scissors be used because they would damage the stalk



4. The moist part of the stalk is dipped in the growth hormone. Without this hormone the root development of the plant (the cutting) could be problematic.



2. The bottom two to three centimeters of the stalk is briefly being dipped in water to ensure the growth hormone (*) sticks to it.



5. The leaves are now shortened with a pair of scissors so the small cutting does not have to absorb so much water evaporated by the big leaves.



3. I have cut seven cuttings from the branch you can see above here. From the mother plant I was able to cut fifty cuttings (only from the lowest branches). I would always advise a beginner to cut the double amount of cuttings than are actually needed.

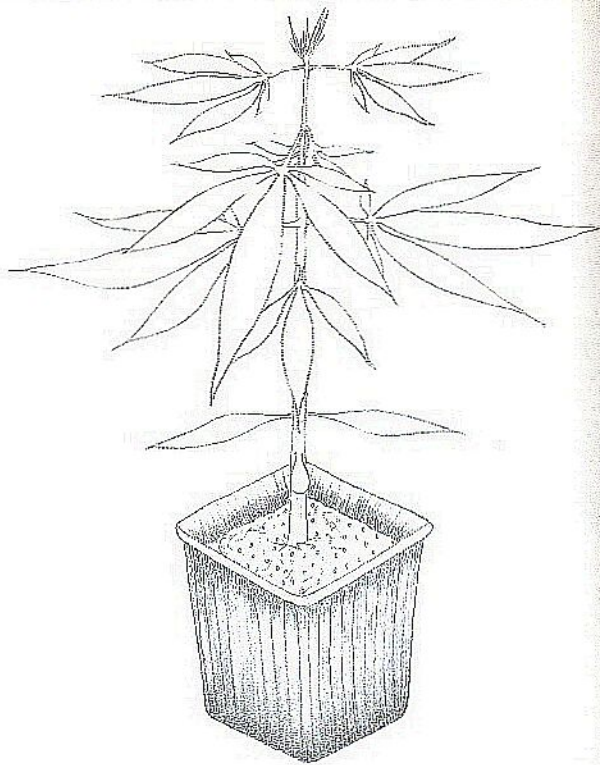
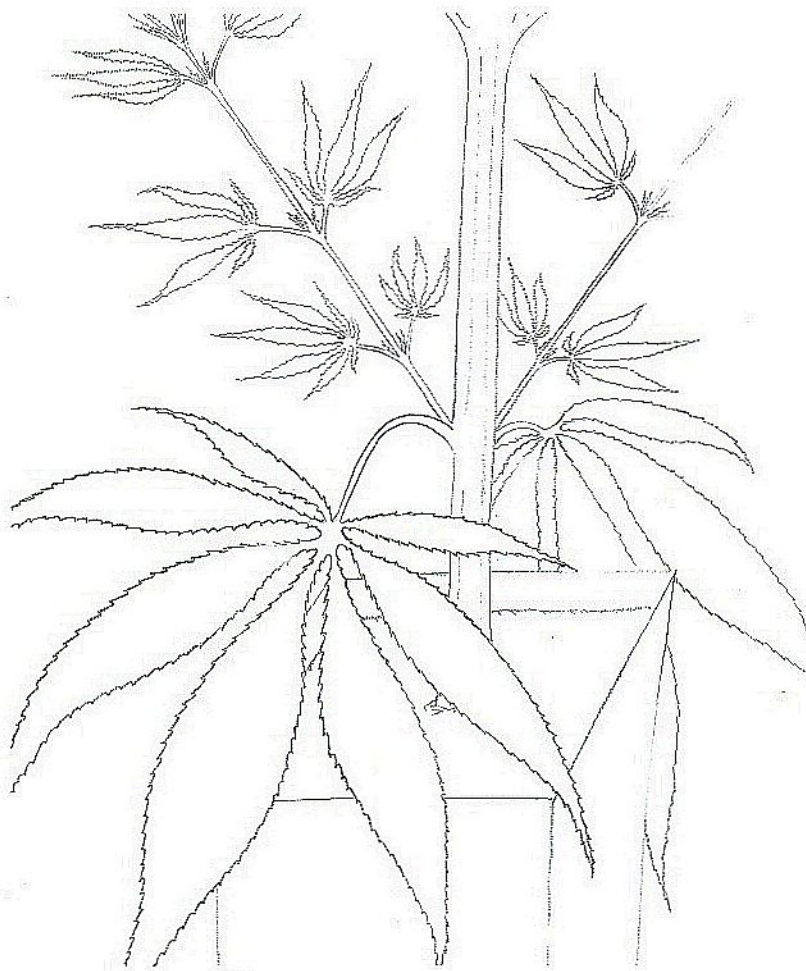


6. Next the little ones are put into prepared peat pots.

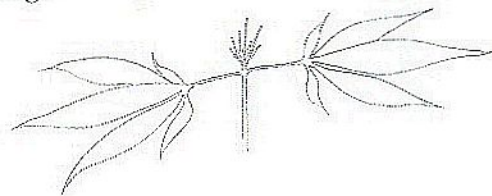


Like this or that?

The first cutting can be cut when the plant has developed the third five-fingered leaf. An important condition when you cut a cutting is that there has to be enough stalk between the leaves. In the end it will be put in the ground at least two to three, but preferably five centimeters. You cut cuttings at such an early stage to determine the gender of the plants as quickly as possible. As soon as the cutting has developed roots, it will be planted in a 15 x 15 x 20 centimeter pot and forced to bloom. If it turns out to be a male, the mother or father plant in question and the cutting will be removed. However, if it develops into a female, she will continue her flowering. You will be able to have a taste beforehand and decide if the seeds are worth the effort. You can save a lot of money with early identification. After all you do not need to repot the male plants and the other plants will obtain more space and light.



The above-described method is only suitable for people with experience in cutting cuttings. Each plant is only capable of giving one cutting.



Another method is to use the lowest branches of a four-week-old plant and force them to flower immediately. In the next two to three weeks the gender will be clear and the cuttings will take root. After this we will sort them again; the good ones go in the pot. The bad ones join the compost pile (female, male). This method will take more effort but because of the fact that more cuttings are being cut, it will offer beginners a greater chance of success. The cuttings will go through a normal growing phase and the most beautiful one will become the mother plant for the next generation. After about six to eight months, the old mother plant will be replaced by a fresh, strong cutting because it is very difficult to keep a plant healthy for such a long time and get it through good flowering too. Moreover you will be in the position to smoke the same sort for years to come, without having to buy new seeds. I have also noticed that cuttings usually produce more than their sisters that are cultivated from seeds. A mother plant with a growing period of six months and great flowering has already given me 259 grams of dry weight.

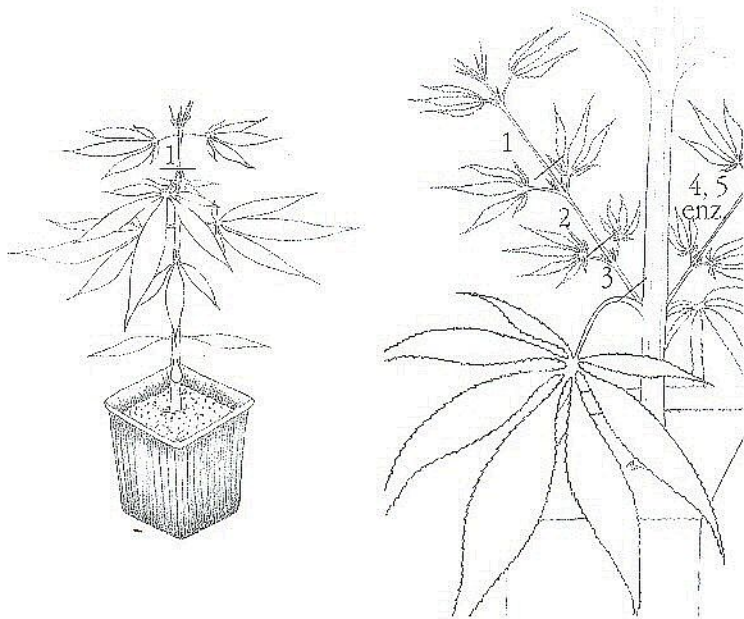


Important details when cutting cuttings!

I need:

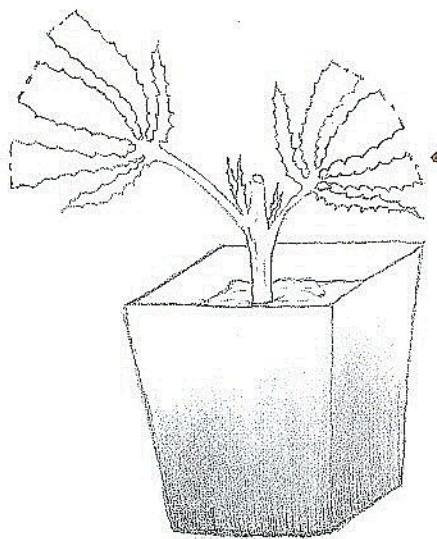
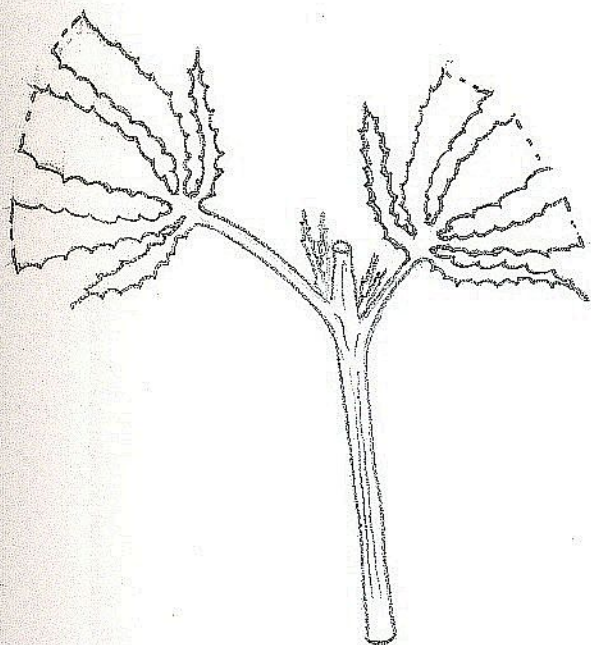
1. Rooting hormone
2. A knife or a scalpel
3. A small greenhouse
4. Peat pots 5 x 5 cm
5. A mother plant and soil

Without the use of a rooting hormone the cuttings don't have much chance. At my first attempt (without rooting hormone) only two of the twenty cuttings survived. They needed three to four weeks to take root. This should normally only take ten to fourteen days. The longer it takes to develop roots, the lower the chance of survival for the cuttings. The freshly cut cuttings need a humidity level of 80% to 85%, a temperature of 25°C and 18 hours of light a day — the same sort of climate we want for our seeds. The stem of the cutting should not be longer than 10 centimeters. The cutting has to be able to transport water through the stem without the help of roots. The same thing counts for the big leaves. They are being used by the small cuttings for photosynthesis — the conversion of light into new leaves. But they use too much water (the leaf absorbs the water and a part of this evaporates through the leaf's surface). The small piece of stem cannot handle



this. Therefore, I cut the big leaves into half with a pair of scissors. I have been cutting my cuttings this way for already three years and my loss amounts only 5% to 10%. I can live with that.

So 5 to 10 seeds are enough to cultivate a variety for years. Until now I have been able to cultivate a variety for more than two years without experiencing a loss in potency. On the contrary, I have the feeling that the flower clusters are becoming increasingly bigger and stronger in potency.





Here it is clearly visible how the roots grow through the pot. It is very important to pay attention to such long roots. They might become damaged when repotting. Now the cuttings are put in 9 x 9 pots in which they will be able to develop nicely for the next three weeks only of course if the soil is good. From now on well-fertilized soil needs to be used. It is also very important to make sure that the humidity level is around 60% to 65%.

Sometimes the roots are not visible and you nevertheless want to repot because the cuttings have been in the small greenhouse for more than fourteen days. Some may not survive. To increase the chance of survival for the cuttings they are immediately put back into the greenhouse after repotting. This way you divide one big shock into two smaller ones that are easier for the cuttings to handle.







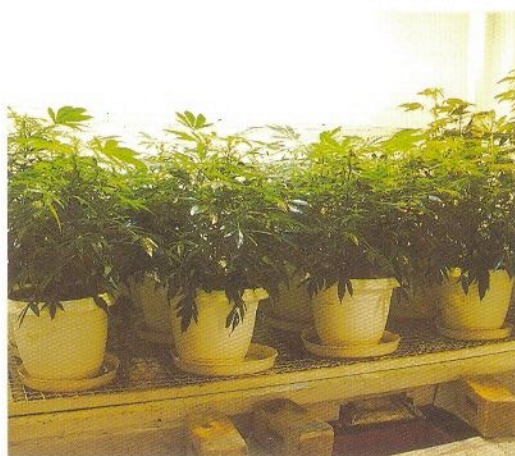
Now it is time to say goodbye to the fluorescent light system and to convert to the sodium lamp system. The cuttings went through a seven-week period of growth in which they reached the height of 40 centimeters. You could even say that they are all the same height, something that would never happen with plants cultivated from seeds.

A plant cultivated from seed would have grown 20 to 30 centimeters higher, which is also an advantage. Cuttings have more advantages:

1. They grow more compactly.
2. They develop one third more side branches.
3. They are all female.
- 4: The inspection for male and female plants can be dropped.

Since there is one third more side branches, a higher yield is possible. So cuttings do have a few advantages you cannot ignore.

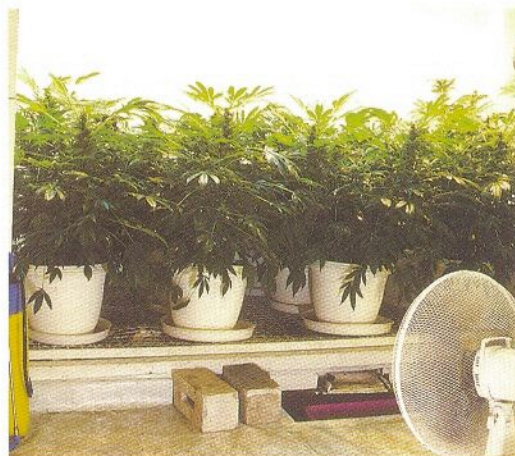
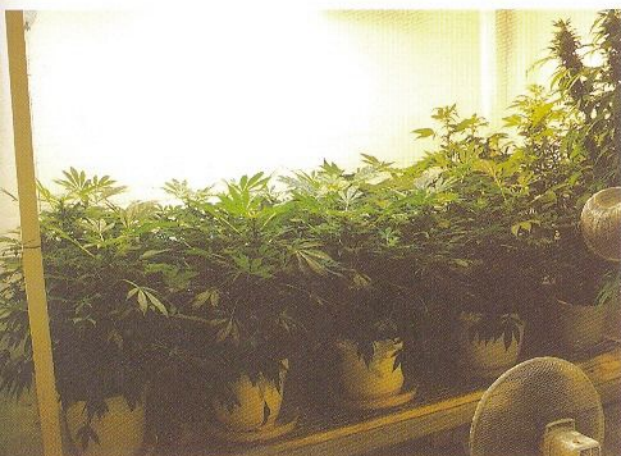
In Holland, the whole business in cutting material is very good. Almost every type that is available as seed, you can buy as a cutting. Unfortunately, and I have to mention this, all trade and import of cutting material is PROHIBITED and you will have to start with seeds. However, since February 1, 1998, this also became illegal. What can I say about this, except that they have lost their minds? We all wish that our cuttings could be on sale in special shops. Now we first have to fight to remove the seeds from the stigma of criminality. Our politicians should be more aware of the liberal Dutch drug policies. Even they can no longer deny the results of these policies.



I have repotted the cuttings of the Big Buds into 10-liter pots.



Two weeks later, I am very happy that I still have the Big Bud as a cutting.



Three weeks after budding and they have completed their growth spurt (which will be repeated when flowering).



Four weeks and everything is still fine.



12 Big Bud cuttings (with a healthy green color) after five weeks of flowering.

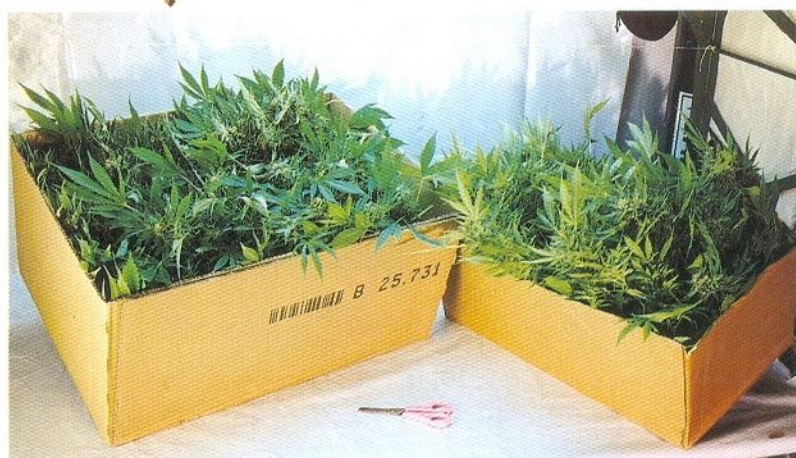
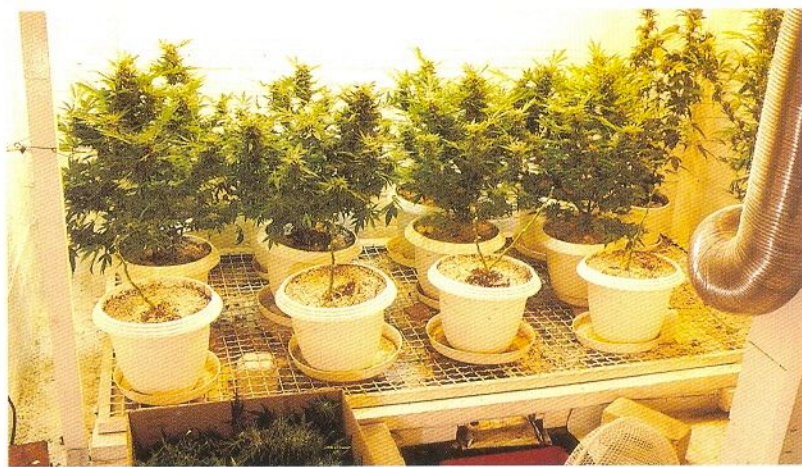
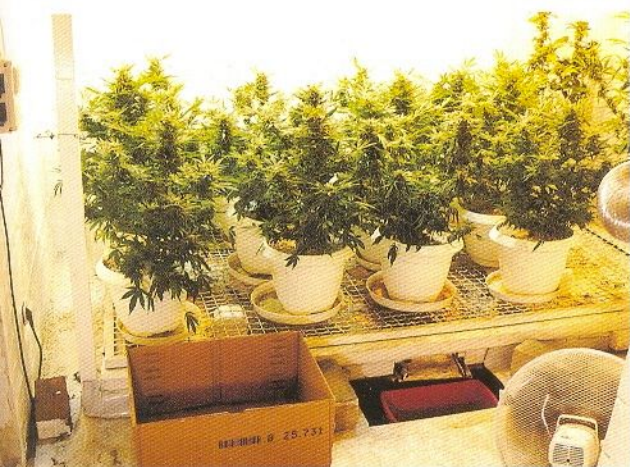




They have been flowering for seven weeks and they look great, don't you think? The Big Buds are almost ready for the harvest and because they are all cuttings, I can harvest the twelve Big Bud plants at the same time.

Tomorrow it will be a full moon and that is the time when I will harvest. This is how I recognize the Big Bud, a small Indica with a high yield — exactly the way she is presented by the cultivator. It is really my favorite! This is another advantage of cutting cuttings. When you have bad luck, like I did, and you are not successful with the plants you cultivated from expensive seeds, the cuttings can make everything worthwhile again. It is also clearly visible here that the cuttings, which are all of the same age, have reached about the same height — very different from the plants which are cultivated from seeds. I would also like to mention that during those eight weeks the plants that stood in the ten-liter pots filled with my own mixed soil never needed any fertilizer.







10. THE HARVEST OF THE VEGETATIVELY PROPAGATED PLANTS

At this stage there are many methods to choose from as well. For me it is always important to know how much I have left from the previous crop. If everything is finished, which I never hope it is, it is time to quickly harvest and dry. This means that I will cut all the big leaves off the plant and after that all the branches. The big leaves are useless to me

This can become a rather sticky mess and we need a good pair of scissors. There are special harvest scissors available. When the scissors are covered in resin so they can no longer open, it does not mean you have to replace them. It is a good habit to clean the scissors after each use with grease or alcohol.



and will end up on the compost pile together with the used soil.

The branches go straight to my wife for further processing. All middle-sized and small leaves are removed with a pair of scissors. These leaves are quite potent and will later be used to make hashish, see page 128 until 131.



The cleaned flower clusters can now be loosely put in the box and dried in the air. In my living room the humidity level is usually about 40% to 50%, perfect for quick drying. After five to seven days I can start testing. This way none of the good THC will be wasted.



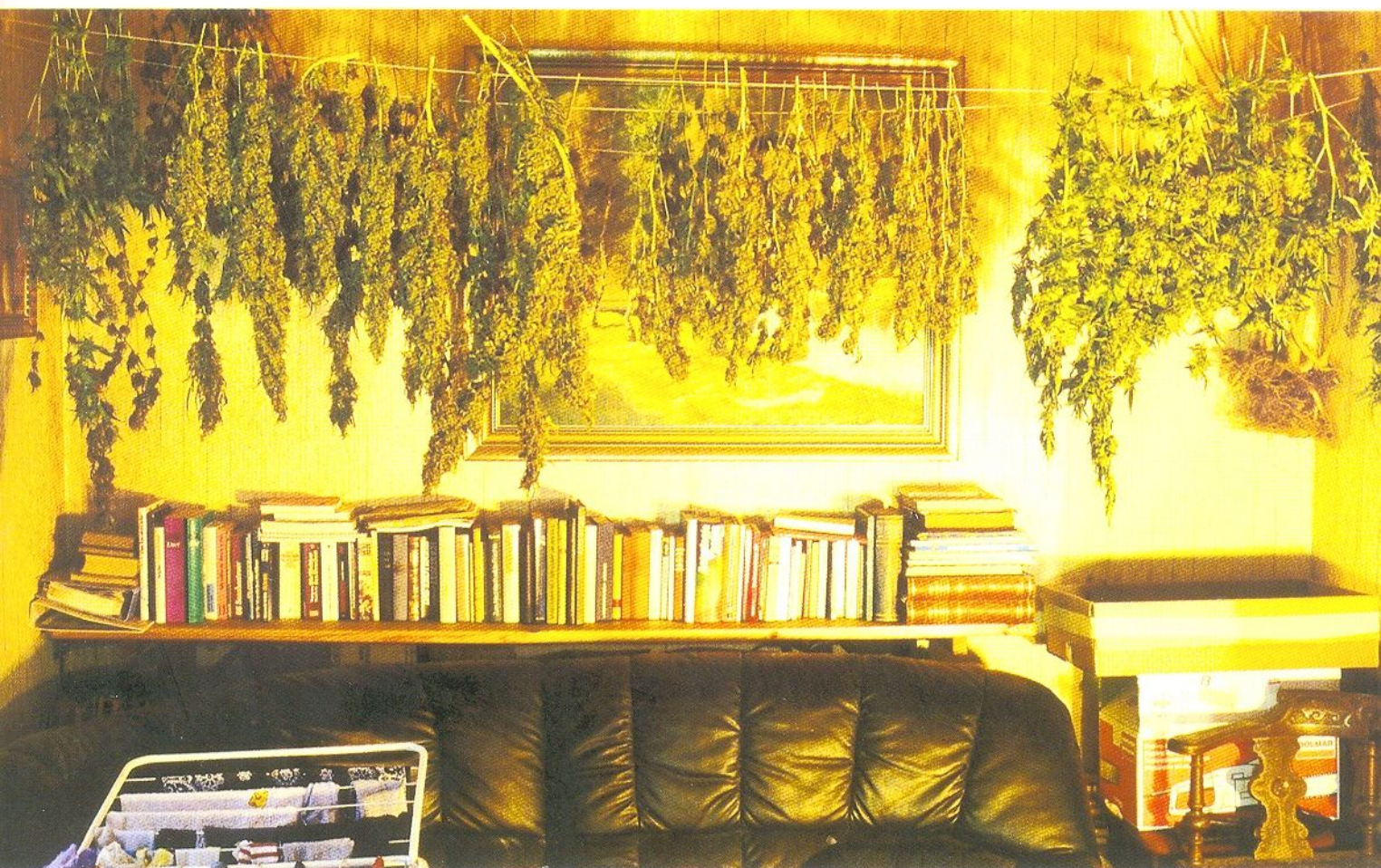


Slowly drying on a line.

Sometimes it happens that my wife is still busy with the previous harvest while actually the next plants should have already been reaped. At that moment I just cut the flowers underneath the stem and hang them upside down on a string. Of course each branch hangs separately and not too close to each other. I have hanged my drying line in the same room where my wife hangs the laundry. With a climate of a humidity level of 50% and a tem-

Now a few short comments on the subject of fermentation. I personally do not ferment because the flowers don't really need it.

Every variety has its own characteristics and the best example of this is Skunk No. 1 with its typical skunk smell and taste. These would be lost if you fermented the flowers. And what precisely is fermentation?



perature of 18°C, the flowers will need 14 to 21 days to dry. But be careful because under these conditions mould can develop very easily. Therefore, it is necessary to look for mould infection every day and, if that is the case, action will have to be taken immediately. The mould will have to be removed and the rest will be dried. If the harvest is dry and Carola is still busy upstairs, I put everything in a blue bag. These bags will be processed slowly but this situation seldom occurs.

This is the name of the process when the starch in the leaves is converted into sugar. At the same time enzymes are breaking down the chlorophyll (the green color in leaves). Anybody who would like to know more should purchase the Encyclopedia of Marijuana Cultivation where I have read the best information on this subject.



11. PROCESS WHEN THEY ARE STILL FRESH

Fresh

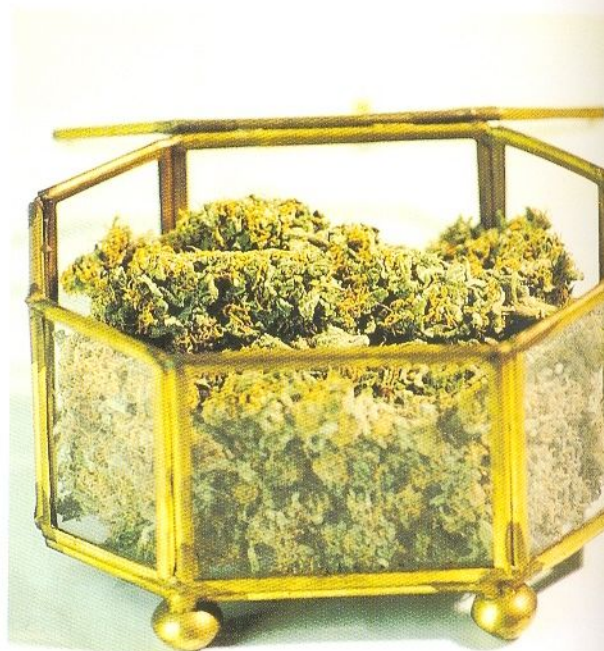
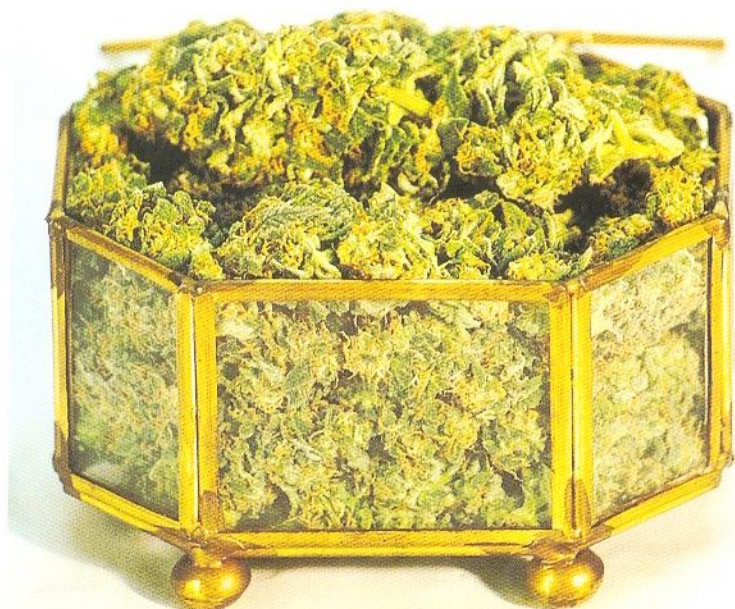


The first time I put some crumbled flowers in the box to dry, I was shocked when I saw how little was left. I first asked my wife if she had taken any, which would of course not be a problem but I just wanted to be sure. She, however, thought it would not be fair.

Dry



You really lose about a third of the volume and the weight goes down even more. In practice it involves the loss of 70% to 75% water, which means that from 100 grams, only 25 will be left.





It is without doubt possible to save a good harvest for years without a too big loss of THC.

You only need to take care of a few important points and after that the weed will taste even better than it did on the first day

- I The weed must not consist of more than 5% to 10% of moisture (water), otherwise it will go moldy.
- II Light (ultraviolet radiation) can cause a large decrease in THC. That is why you should use nontransparent pots for storage.

III Temperature, as well as light, can cause a big decrease in THC. Therefore, it is advised to use storage temperatures of less than 10°C.

IV Air (oxidation) is the most important taste and scent-disturbing factor which has to be closely watched during storage.

The next described method has done me well. I use ordinary one-liter freezing bags with a snap fastener in which you can store up to 100 grams. When filling the bags, it is important to make sure there are no holes in them. Before I close the bags, I try to suck out as much air as possible. The best way to do this is with a straw. I use adhesive tape to prevent the bags from accidentally opening. After this, everything goes into a hole in the ground or into a freezer.

When storing underground (burying) you have to ensure that the selected place always stays dry even if there's heavy rain. These holes have a big advantage over the freezer in that they are almost never discovered if your house is searched. What's more, the space in the freezer is limited but it's free in nature and you can bury a lot.



